DRAFT

MONTANA ACTION PLAN and HIGHWAY PLANNING AND DESIGN PROCEDURES

State of Montana, Department of Highways

STATE OF MONTANA

DEPARTMENT OF HIGHWAYS

HELENA, MONTANA 59601

H. J. ANDERSON
DIRECTOR OF HIGHWAYS

May 21, 1973

DSJ
IN REPLY REFER TO

Action Plan Draft

Dear Ladies & Gentlemen:

On May 30, 1973 the Montana Department of Highways will hold a public hearing, details of which are enclosed, on the draft of our Action Plan.

The Action Plan is the procedure that the department will follow in the future for the development of the highway program.

We would appreciate having you make the enclosed draft of the Action Plan available to the public for their inspection.

Very truly yours,

H.J. ANDERSON,
DIRECTOR OF HIGHWAYS

By _____
David S. Johnson, P.E.,
Manager-Engineering Specialties

DSJ/lm

Enclosures

NOTICE OF A PUBLIC HEARING ON MONTANA'S ACTION PLAN

NOTICE IS HEREBY GIVEN THAT, in accordance with Section 136 (b) of the FEDERAL AID HIGHWAY ACT OF 1970 and Policy and Procedure Memorandum 90-4 issued by the U.S. Department of Transportation, a public hearing on Montana's Action Plan will be held in the auditorium of the Department of Highways Building in Helena, Montana on Wednesday May 30, 1973 at the hour of 7:30 p.m., relating to the proposed procedures for public involvement in the development of highway projects.

The Montana Department of Highways has prepared a draft of an Action Plan which will be the procedure that the Department will follow in the future for the development of the highway program. The emphasis is on public involvement in the highway program; the use of an interdisciplinary approach to identify and study social, environmental, and economic impacts; and the appropriate evaluation of alternate courses of action available. Information relating to this program, will be available after May 22, 1973 for public inspection and copying at the Department of Highways, Division Offices and at public libraries.

INVITATION IS HEREBY EXTENDED TO ALL INTERESTED PERSONS in the subject matter of this notice to attend said hearing and to submit written briefs or verbal comments that will aid in the preparation of the final Action Plan. Written statements will also be accepted for five (5) days following the hearing by the Department of Highways, Helena, Montana.

Dated this 15th day of May 1973

Project: MONTANA ACTION PLAN

H. J. ANDERSON
Director of Highways

STATE OF MONTANA

DEPARTMENT OF HIGHWAYS

MONTANA ACTION PLAN

AND

HIGHWAY PLANNING AND DESIGN PROCEDURES

D R A F T R E P O R T

The Department and VTN INC.

May, 1973

ACTION PLAN FUNDAMENTALS

ACTION PLAN COMPONENTS

Purpose and Intent

This Action Plan has been prepared by the Montana Department of Highways in response to those specific requirements for full considerations of economic, social and environmental factors in all stages of the highway planning and design process set forth in Policy and Procedure Memorandum 90-4, issued by the Federal Highway Administration, in compliance with Section 136 (b), Federal Aid Highway Act of 1970. Within the context of the above stated purpose, the Montana Department of Highways intends

. . . to assure full consideration of economic, social and environmental effects of alternative courses of action and alternative project proposals in the development of highway projects

. . . to inform and appropriately involve all interested governmental agencies, whether Federal, state or local, in all phases of the highway planning and design process

. . . to inform (and solicit comment from) the public, and all concerned private organizations, of proposals and developments in the highway planning and design process

. . . to develop and implement procedures which merit public confidence in the highway planning and design process

. . . to insure highway planning and design decisions which are made in the best overall public interest taking into consideration the need for safe, fast efficient transportation and the cost of eliminating or minimizing possible adverse, economic, social and human environmental effects

. . . to provide for interdisciplinary impact evaluation for the purpose of insuring adequate identification and evaluation of all economic, social and environmental impacts, leading to the maximization of beneficial impacts, the development of reasonable alternatives, and the minimization of adverse impacts.

(A Summary of The Action Plan will be included in the Final Report.)


AUTHORITY

1.1
Authority

The reorganization of Executive Department Act of 1971, created the Department of Highways with a Director of Highways as the department head, to be appointed by the Governor, with that appointment subject to confirmation by the Senate. The Montana Highway Commission establishes highway policy; the Director of Highways executes that policy.

Under the provisions of the Reorganization Act, the Director of Highways shall:

(a) Supervise, direct, account for, organize, plan, administer, and execute the functions vested in the Department by this act or other law.

(b) Establish the policy to be followed by the Department and employees.


POLICY

2.1
Policy Statement

To provide the people of Montana the benefits of an efficient, safe system of highways developed without undue cost and with the least possible change in the Montana environment, it is the policy of the Department of Highways that

. . . full consideration is given to economic, social and environmental factors in the planning and design of highway projects

. . . provisions for ensuring the consideration of economic, social and environmental factors are incorporated in the decision-making process

. . . decisions on highway project planning and design are made in the best overall public interest, taking into consideration the need for fast, safe and sufficient transportation, public services, and the costs of eliminating or minimizing possible adverse economic, social and environmental effects.


APPLICATION

3.1 Application Statement

These procedures established in this Action Plan shall be applicable in the planning and design of the highway systems and projects indicated in Subsections 3.1.1 and 3.1.2, below.

(The Action Plan provisions are not to be implemented in manner which will interfere with upgrading of an existing roadway in an attempt to bring such roadway up to an acceptable standard. Nor should the no build alternative affect existing roadways.)*

3.1.1 Federal Aid Projects

All projects requiring approval of plans and specifications and estimates by the Federal Highway Administration.

3.1.2 Other Projects

All projects which, in the opinion of the Department, have economic, social and/or environmental impacts sufficiently obvious to justify planning and design decisions conforming with these Action Plan procedures.

PROCEDURES AND ORGANIZATIONS

4.1 Introduction

The Action Plan concept has as its basic purpose the implementation of a highway planning and design process cognizant of and responsible to the economic, social and environmental effects of proposals and projects. The effectiveness of the process to be implemented is directly related to the adequacy of the procedures governing process implementation and the appropriateness of the organization directing and guiding the process flow. The overall effort looks to the application of interdisciplinary analysis, interagency cooperation, full public participation, and an early consideration of impact factors. The process of considering the economic, social and environmental effects of proposals and projects would develop as impact evaluation. This provided a key phrase in developing a program for carrying out the action plan concept.

The Department of Highways exists as an organization with established procedures. Its activities include the application of interdisciplinary analysis, interagency cooperation, public participation, and a consideration of impact factors. However, the extent of application remained an open question and would have to be tested. Accordingly, a documentation of existing procedures was an early input into the work of

formulating the Action Plan. (See Appendix A for full account of Action Plan Development.)

The flow-charts resulting from the documentation of existing procedures provided the working tool used in the assessment of procedures then in effect. An augmentation of existing procedures was seen as the desirable approach to fulfilling the Action Plan concept.

From the assessment of the existing procedures, it became a matter of fitting desired impact evaluation procedures into the framework of the existing planning and design procedures flow of activities. The impact evaluation procedures were developed in response to questions concerned with "What may be done at this step?" and "How will it be accomplished?". The "Who (person or unit) will be responsible?" followed. The "who" inquiry began looking to people oriented inputs, i.e., resource persons, interdisciplinary evaluation units, interagency review groups, and the public. The result of the many "Brainstorming" sessions resulted in a new set of procedures flow charts -- Montana Department of Highways Planning and Design Procedures (see Plate series 4-5A, 4-5B and 4-5C -- covering systems planning, location studies and design activities. The

modified planning and design procedures provide for the application of interdisciplinary analysis, interagency cooperation, full public participation, and an early consideration of impact factors.

As appropriate, the following sections describe pertinent organizations and activities of the Department of Highways, the Department of Highways Planning and Design Procedures (The Action Plan), impact evaluation organization and activities, and the impact evaluation data flow system.

4.2
Department of Highways Organization

4.2.1 Introduction

The responsibility for the implementation of the Action Plan rests within the Department of Highways.

The Department of Highways is responsible for the designation, planning, engineering design, construction, maintenance, administration and protection of the State highway system, except that county officials have the privilege of selecting secondary highways. Highway policy is established by a five-man State Highway Commission . . . a quasi-judicial board appointed by the Governor. The Director of Highways is responsible for the overall direction of the Department, and appoints employees to the various divisions, bureaus, sections and units and also delegates authority and responsibility to such employees. Department of Highway headquarters, housing the Commission, and the hub of coordination in the State, is in Helena.

The Department of Highways is the largest State agency. Understandably then, there are a number of support functions which do not directly affect highway planning and design and these will not be discussed. Highway planning and design procedures will be discussed in a later section.

The Department of Highways is divided into seven divisions, (See Plate 4-2A) each headed by an administrator reporting directly to the Director of Highways. One of these divisions -- Engineering Division -- has general responsibility for highway planning and design activities within the Department.

The Administrator - Engineering Division, directs the work of the bureaus, sections and units within the Engineering Division. Directly involved in highway planning and design activities are the Planning and Research Bureau, the Preconstruction Section, the Project Control Unit and the Secondary Urban Unit. The activities of these four organizations within the Engineering Division are spread over the three stages of the highway planning and design process -- systems planning, location studies and design activities (See Plate 4-2B). These three stages of highway planning and design activities are discussed in the following subsections.

4.2.2 Systems Planning

Systems planning is generally defined as the regional analysis of transportation needs and the identification of transportation corridors. More to the

point, it is considered to be the process of continuously examining public transportation needs and desires, integrating them into systems plans, and finally identifying and developing specific projects for inclusion in the Department of Highways' work program. Sepcifically, it covers the activity span from the initial identification of need to FHWA's approval of the PR-1. Within the range of this span of activity, there are systems planning, the establishment of project priorities, and project formulation.

(a) Systems Planning

Systems planning involves planning for

. . . urban highway systems

. . . statewide primary systems

. . . county secondary systems.

(1) Urban highway systems planning is a process of coordinating all planning in the State's urban and urbanized areas (municipalities with a population exceeding 20,000, including 3-C programs) to assure compatibility with the needs, goals and desires of the inhabitants. The planning process looks to a

continuing appraisal of needs, is developed as a co-operative effort between local governments, and results in a plan for transportation adapted as part of the comprehensive plan for the overall community. Specifically, the result of the system planning phase is an approved highway transportation plan in each of the urban and urbanized areas for cities over 20,000 in population.

(2) State-wide primary system planning is the process of designing a state-wide primary roadway system for the non-urban areas (including municipalities with a population less than 20,000) of the State. State-wide planning is a continuing process and plans are updated periodically.

(3) County secondary systems planning is the responsibility of the Board of County Commissioners for each of the State's 56 counties. The County Secondary Systems plan is developed in response to local desires and results in the identification of those secondary roads which should be improved in the more immediate future.

(b) Project Priorities

The establishment of project priorities falls into

four different categories corresponding to differing responsibilities for suggesting project proposals including

. . . urban areas (20,000 or more population), where project proposals are suggested or reaffirmed by the governing bodies of both the central city and the County;

. . . urban primary system (less than 20,000 population), where project proposals are suggested or reaffirmed by the appropriate city governing bodies;

. . . rural primary system, where priorities are established and approved by the Construction Division Supervisor; and

. . . county secondary system, where priorities are established and approved by the county governing body.

(c) Project Formulation

Program formulation is the coordinating phase between basic systems planning and project development.

It begins with the assignment of priorities and ends with FHWA's approval of the PR-1 request. Any section of highway, if it is to pass beyond the stage of an assigned priority, must be evaluated and fitted into an approved program. Program formulation is an evaluation process which leads to project implementation.

Program inputs came from urban highway systems proposals, state-wide primary systems proposals, and county secondary systems proposals. Following these inputs, fiscal controls are established which place constraints on completing all desired highway improvements. Proposals from the various systems are compiled and reevaluated, resulting in the designation of a system of needed highways, which can be developed within the limits of the fiscal resources available to the Department of Highways.

4.2.3 Location Studies

Location studies are generally defined as those actions and considerations in the highway planning and design process which take place between the end of the systems planning phase and the beginning of the design phase. Location studies end with FHWA approval of the selected location.

Locational studies, as carried out by the Department, go through an iterative process. The studies consider possible corridors and locational alternatives. The result is a refinement of possible locations and the selection of a specific highway alignment.

Locational studies are the responsibility of the Preconstruction Section. Other bureaus, sections and units contribute, as appropriate.

4.2.4 Design Activities

Design activities are generally defined as those actions and considerations in the highway planning and design process which take place after FHWA approval of a selected highway alignment, are through approval of plans, specifications and estimates.

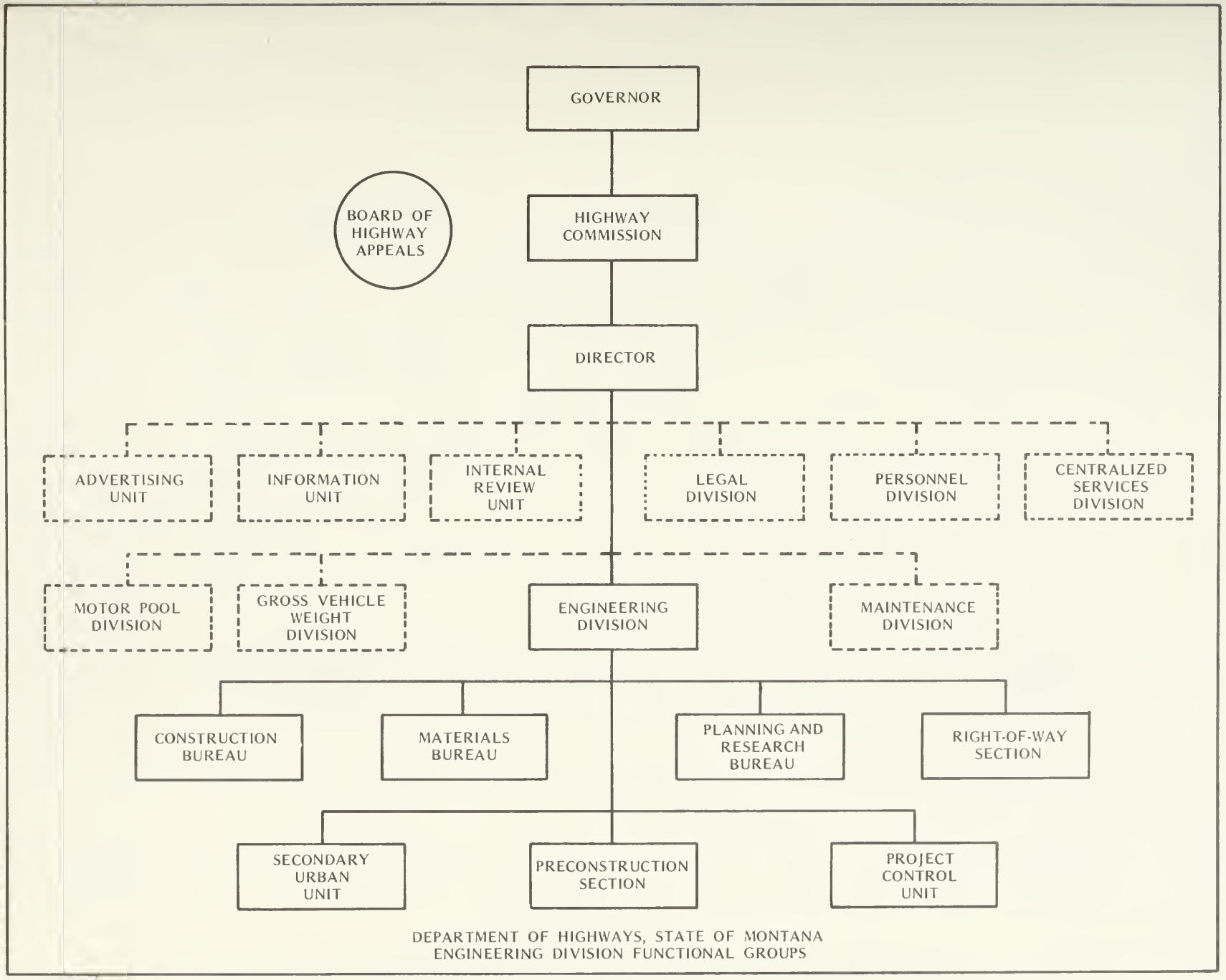
Design activities include

. . . the Design Planning Report, setting the criteria to be used in the design of a highway project;

. . . the Design Study Report, describing essential elements relating to design standards; and

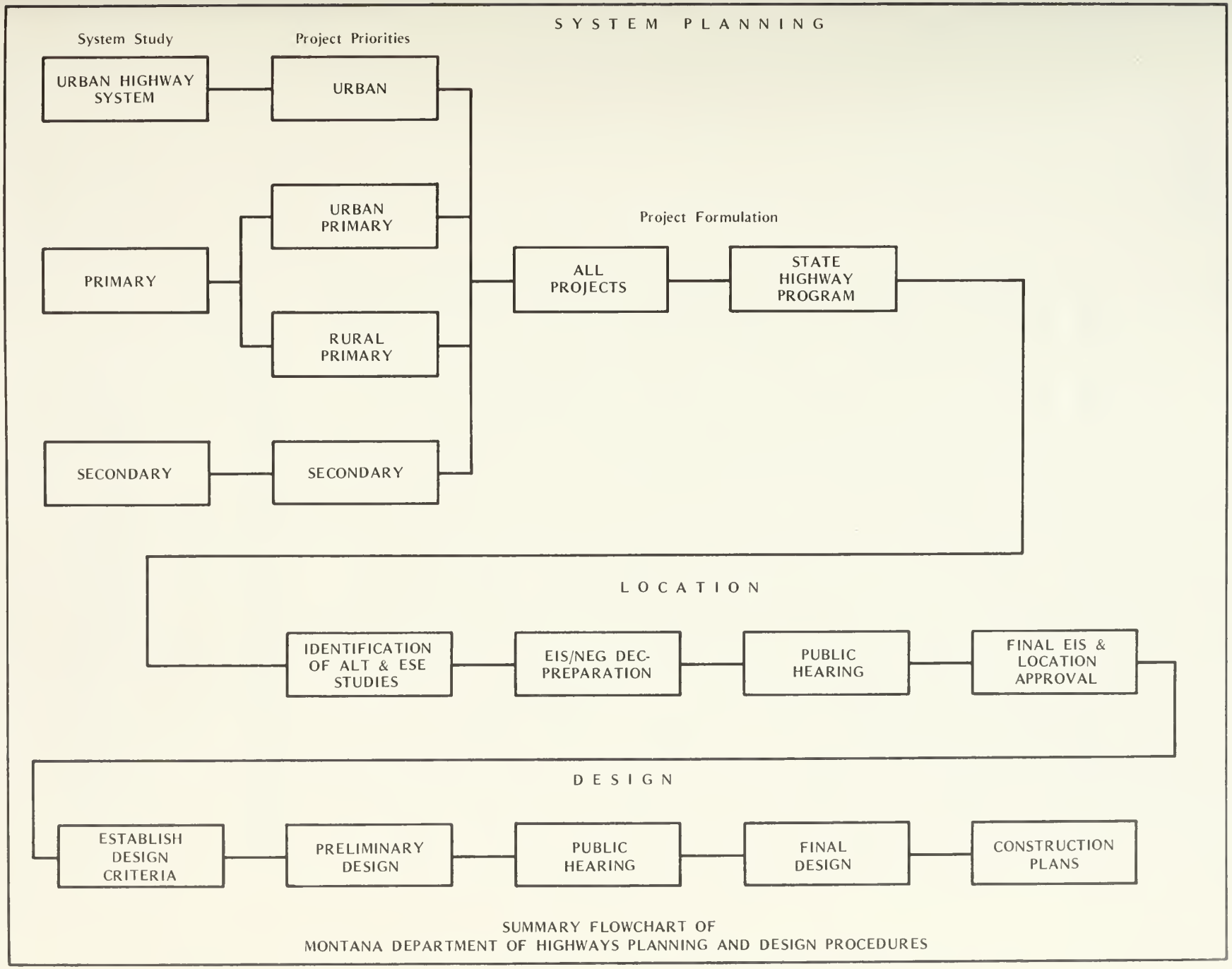
. . . Final Plan development, covering the preparation of comprehensive, detailed final contract plans.

Design activities are the responsibility of the Preconstruction Section. Other bureaus, sections and units contribute, as appropriate.



DEPARTMENT OF HIGHWAYS, STATE OF MONTANA
ENGINEERING DIVISION FUNCTIONAL GROUPS

PLATE NO. 4-2A



SUMMARY FLOWCHART OF
MONTANA DEPARTMENT OF HIGHWAYS PLANNING AND DESIGN PROCEDURES

PLATE NO. 4-2(B)

4.3
Impact
Evaluation
Organization

4.3.1 Introduction

While developing the Action Plan for Montana, it became apparent that organizational adjustments would be required to provide for in-depth identification and analysis of economic, social and environmental factors that might result from decisions made by the Department of Highways. Upon closer analysis it appeared that it would be very difficult, if not impossible, to provide for the addition of staff members to the Department to adequately represent every discipline that could be required. In addition, and based on past opinions expressed by the public, the Department felt it would be to the best interest of the citizens of the State of Montana to provide some form of monitoring body outside the Department to serve in a check-and-balance position. An outsider divested of highway involvement that would make sure the Department adequately considered all economic, social, and environmental effects of a proposed project.

To meet these needs, the Department of Highways established

. . . an impact evaluation unit - a Department of Highways core staff of "impact evaluation specialists";

. . . an impact evaluation team - a task force of disciplines, the impact evaluation unit plus specialists from other agencies, universities, or consultants, assembled for a specific project or study;

. . . an impact evaluation group - a permanent body, composed of members from other state agencies, to review the economic, social and environmental effects of proposed highway actions.

The following sections of this main topic will detail the three elements, describing what will be done, who will be involved, and how the element will function within the Action Plan process. Specific points of involvement for each of the three elements are shown on the Department of Highways Planning and Design Procedures section.

4.3.2 Impact Evaluation Unit

The impact evaluation unit is an organizational element within the Department of Highways. The unit is the core staff of impact evaluation specialists within the Department. This will be a permanent body functioning under the direction of an impact evaluation coordinator.

The unit will provide economic, social, and environmental information to the Area Engineer (project manager) as required for a particular situation on a specific project. The unit will also function as an interactive member of the project team providing consideration of the economic, social, and environmental effects throughout the life of the project, thus making project development interdisciplinary in approach. Finally, the unit will serve as a member of the impact evaluation team and the impact evaluation coordinator will serve as the team leader.

The impact evaluation unit is currently composed of personnel in the employee of the Department of Highways. The members include an impact evaluation coordinator and specialists in the fields of biology, landscape architecture and horticulture.

The unit has been incorporated into the Action Plan process to provide economic, social, and environmental input into the system. The unit will be available to project managers on an as-required basis. Cities and counties that do not possess impact evaluation specialists may also request the services of the unit when economic, social, and environmental effects of a decision need to be evaluated and considered.

The Department of Highways will have on its core staff a team of specialists - knowledgeable of the economic, social and environmental factors that need to be evaluated for a highway project. The unit will speak the "language" of the varied disciplines that will be required to study the probable impact factors. And the unit will know where to find a particular discipline when it is required for a project. The Department has the ability to communicate its needs and requirements to disciplines other than that of engineering.

4.3.3 Impact Evaluation Team

The impact evaluation team is an ad hoc team of impact evaluation specialists assembled for a particular project or study. The impact evaluation team concept will provide the Department of Highways with the ability to utilize multiple disciplines as a situation requires without having all disciplines employed within the Department. As a particular project warrants consideration of a specific economic, social or environmental factor, the impact evaluation team for that project will be expanded to include a member or members with expertise in that field. Team members will be selected by the Supervisor, Preconstruction Section, after conferring with the area engineer, the impact

evaluation coordinator, and the impact evaluation group.

There could be a number of impact evaluation teams - one for each of a number of systems studies projects. The membership of the teams will vary with the particular projects and situations. Indeed, the team membership could fluctuate at any time, based on the economic, social and environmental factors under consideration at the moment.

The team members will consist of the impact evaluation specialists from the impact evaluation unit and those other persons as required by the situation at hand (a particular specialist could serve more than one team). The Department of Highways is formulating Memorandums of Understanding with other Montana State agencies to provide for use of persons possessing training in various disciplines that are anticipated as being required in future studies and projects. In addition, the Department has been in contact with the Montana State University System and has an understanding with them that required disciplines may be contracted with for studies and projects. There are a number of professional consulting firms that may also be contracted for studies and projects. The Department of Highways

is thus able to assemble the required economic, social, and environmental knowledge required for practically any situation, - as it is needed.

The impact evaluation team will serve as an interactive, multi-disciplined member of the project task force leading to an interdisciplinary approach to project development. In addition, the other state agencies concerned with economic, social, and environmental effects will have members of their staffs involved as active participants in the project development.

The team will furnish the ultimate decision-maker with detail data upon which to base his decision. The level of detail will be dictated by the decision and situation at that point in time. There will be situations which require repeated refinement of data before a valid decision may be reached. As data is accumulated, other economic, social, and environmental factors will come to light that had been hidden from view. Those new factors may result in renewed effort in another direction requiring added disciplines be included on the team. The impact evaluation team will thus serve as the main source of detail economic, social, and environmental input into the system.

4.3.4 Impact Evaluation Group

The impact evaluation group is a permanent inter-agency body formed to review economic, social, and environmental effects of highway projects and monitor their consideration within the Department of Highways. Initially, it is proposed the group will be composed of members from

. . . Department of Fish and Game

. . . Department of Health and Environmental Sciences

. . . Department of Intergovernmental Relations-Planning Division

. . . Environmental Quality Council

. . . Department of Natural Resources

. . . Department of Highways

. . . Federal Highway Administration - ex-officio member

The group will meet on a regular scheduled basis with an agenda of projects or points for discussion. The group will serve as a "watch dog" over the Department of Highways -- not because the Department will "try" anything -- but to assure the public and the Department that all pertinent economic, social, and environmental factors have been adequately considered.

The impact evaluation group will review projects and data as they become available. During systems planning the group will review the plans and offer suggestions and recommendations to the organizations responsible for long range planning. The group, with a multiplicity of disciplines, will provide the vehicle for direction and suggestion on a state-wide basis. Decisions will be reviewed to assure full consideration of economic, social, and environmental effects. Data that served as the basis for a decision will be reviewed to verify that the level of detail of the data was sufficient for a valid decision at that point in the system.

As the group reviews data and decisions, there will be times when the data developed at a later stage of the project renders a prior decision invalid or suspect. When this occurs, the group -- or for that

matter, anyone discovering such a situation -- could recommend the project to cycle back to that point in the system at which the last valid decision was made. The more detailed data could then be utilized by the decision-maker and the project recycled through the process to a point deemed desirable by the decision-maker.

Funded projects are placed on the Tentative Construction Program. The program is updated annually and will be reviewed by the impact evaluation group for the purpose of verifying that each project -- based on the data accumulated to date and contained in the impact evaluation notebook (see Section 4.4) -- is still a viable project and warrants further consideration. Those projects that become suspect, due to the passage of time and changing needs or due to new data that has been assembled, could be recycled to the last valid decision point -- even back to the first system decision to consider the project in the first place -- if the decision-maker deems recycling desirable. Each project, then, will be reviewed continually as it passes through the system and at least annually on a formally scheduled basis. This procedure, then, serves to assure that when projects are constructed they meet the current and future needs of the public.

4.4
Impact
Evaluation
Notebook

4.4.1 Introduction

The Action Plan concept and the emphasis on a systematic, interdisciplinary approach to highway planning and design requires a forward flow of impact evaluation data. A number of methods were considered. The decision was to go to separate documentation.

The planning and design of a highway improvement project involves many people, countless decisions, and a period of time generally stretching into years. For the most part, information has been carried forward in files and in a series of reports, each building on the earlier report. The initial impulse was to cover the forward flow of impact evaluation data by including the necessary information in these reports. In actual practice, however, the format of these reports are pretty well set. Rather than develop new formats, separate documentation seemed appropriate. Accordingly, the information on data collected, studies, consideration, participants, decisions, etc., will be included in an impact evaluation notebook.

4.4.2 Notebook Format

The impact evaluation notebook will document a chronological account of all action taken to support

a full consideration of economic, social and environmental effects of proposals and projects subject to this Action Plan, and with sufficient scope to clearly indicate that impact evaluation included

. . . the identification of potential economic, social and environmental effects (both beneficial and adverse) of alternative courses of action

. . . the use of a systematic, interdisciplinary approach in the planning and design process

. . . the involvement of other agencies and the public

. . . the consideration of alternative courses of action, including the option of a no-highway improvement.

The included information will be carried in loose-leaf form and in chronological order.

4.4.3 Method of Entry

(The impact evaluation notebook will be initiated

at the beginning of the project formulation phase of systems planning, for each project.)

(a) First Entry

The first entry will be duplicated copies of the impact evaluation data developed during the systems planning and project priorities phases and submitted in support of highway proposals recommended for inclusion in the State highway program.

(b) Subsequent Entries

Subsequent entries will be made in the impact evaluation notebook for each succeeding step of the Highway Planning and Design Procedures where there is participation by

. . . the impact evaluation unit

. . . the impact evaluation team

. . . the impact evaluation group

. . . other agencies and the public

4.4.4 Notebook Custody

(The notebook will follow the project and be available for review by all persons involved in the decision-making process for the appropriate project.)

(a) During Project Planning and Design

The impact evaluation unit will initiate the impact evaluation notebook and will be responsible for the completeness of all subsequent entries.

(b) Following Planning and Design

The impact evaluation notebook for each project, once planning and design are complete, will be retained in the records of the Department of Highways.

4.5
The Montana Action Plan Procedures

4.5.1 Introduction to the Montana Action Plan Concept

The procedures established for the Montana Action Plan are the same general processes described in Section 4.2. The Department of Highways procedures, rather than being abandoned, were amended to better serve established policy. The changes included procedures for insuring adequate consideration of the economic, social, and environmental effects of highway decisions. There was a realization that only through active dialogue with the public -- true public involvement -- could the Department satisfy highway needs as well as the desires of the public. Among techniques used is a Project Notification List, a list of persons, groups and agencies that will be kept informed on the development of a project. Provision is made for consideration of viable alternatives and their reconsideration at points throughout the process. Included as a viable alternative is the "no-project" or no-change option. It will be developed to the same level of detail as the other alternatives and given full consideration.

To assure the public and the Department of Highways that adequate data on economic, social, and environmental effects have been gathered and considered, an inter-agency, permanent, monitoring committee has been

formed -- the impact evaluation group (see Section 4.3). To assemble the required data, an impact evaluation unit -- an "in-house" unit of impact evaluation specialists -- and an impact evaluation team were created. Both are multi-discipline units created to be interactive members of the project task force (see Section 4.3).

The procedures allow for recycling a project to the last valid decision point upon a change in need or covery of information which renders a prior decision invalid or suspect. To facilitate the required data transmission and allow for reconsideration of documentation supporting prior decisions, all information and supporting materials for a project will be contained in an impact evaluation notebook, (see Section 4.4). The notebook will pass through the system, growing as it goes, providing each decision-maker in the system with a solid basis upon which to make a decision.

There are three major divisions or phases in the Action Plan procedures, with sub-phases under each. This major section will review each of the phases and sub-phases, stressing the changes made: to involve the public; to identify and consider economic, social and environmental effects; to identify and consider

alternatives; to utilize the impact evaluation group, units and team; and to recycle projects for reconsideration. This section will assume that the reader is making reference to the charts shown on Plate Series 4-5A, 4-5B and 4-5C.

4.5.2 Systems Planning

Systems Planning is divided into three sub-phases - System Planning, Project Priorities, and Project Formulation. Each of the sub-phases is divided into paths to be taken based on given situations. See the chart on Plate Series 4-5A.

(a) Systems Planning Sub-phase

The Systems Planning Sub-phase has three types of planning that can be followed - (1) one for urban areas of more than 20,000 persons, (2) Primary Roads (urban, less than 20,000 persons and rural) and (3) Secondary Roads. In each case, the goal is the formulation of the long range plan for an area - a plan which takes into consideration the public transportation needs and the economic, social and environmental effects of the highway decisions.

(1) Urban Areas

In urban areas of 50,000 population, the Federal government has required continuous, cooperative, comprehensive planning (3C) in order to qualify for Federal funds. The Department of Highways has established the same planning procedures for urban areas of 20,000 persons or more. The procedures employ a Policy Coordinating Committee, a Technical Advisory Committee, and a Citizens Advisory Committee in their operation, the names being self-explanatory. The Technical Advisory Committee membership is being expanded to include persons from disciplines that are required to identify economic, social and environmental factors.

The procedures already made provision for public input into the planning effort. Provision for consideration of economic, social, and environmental effects has been included through the addition of input from the impact evaluation unit working through the Department of Highways Planning and Research Bureau, the Department's contact with the urban areas study staff. When the draft comprehensive plan has been completed, with economic, social and environmental input from the impact evaluation unit (if requested), the impact evaluation group will review the plan for adequacy of

consideration of economic, social and environmental factors. The group will also offer suggestions for long range planning. Both of these functions will be accomplished through the Planning and Research Bureau, which is the first official Department of Highways contact with the completed draft comprehensive plan.

A public hearing, in the urban area, on the comprehensive plan, before adoption, was already included in the procedures. Because the planning is a continuous process, the public and others are continually offering suggestions and recommendations for updating the Comprehensive Plan. Data on actual developments also cause an update of the plan.

System changes to the urban highway system that are precipitated by the comprehensive plan are reviewed by the impact evaluation unit for adequacy of consideration of economic, social and environmental effects. The process then passes on to the Project Priorities Sub-phase.

(2) Primary Roads

These system planning procedures are used for primary roads in urban areas of less than 20,000 persons and for rural areas. The process already made provision

for public input to the local public authority in urbanized areas and to the Division Construction Supervisor of the Highway Department in rural areas. In performing the long range system planning for the area, the local public authority or the Division Construction Supervisor will have the impact evaluation unit available, through the Planning and Research Bureau in the urban areas, for input of economic, social and environmental effects of the highway decisions.

System changes that result from the long range planning are reviewed by the impact evaluation unit and the impact evaluation group for adequacy of consideration of the economic, social and environmental effects of the decisions. The process then passes to tne Project. Priorities sub-phase.

(3) Secondary Roads

The responsibility for planning the secondary road system is vested in the board of county commissioners for each county in the State of Montana. The loosely structured procedures already made provision for public input to the county commissioners for long range system planning. Economic, social, and environmental effects may be input from local resources or by the Impact

Evaluation Unit if requested by the county commissioners. System changes to the Secondary Road System are reviewed for adequate consideration of the economic, social and environment effects by the impact evaluation unit and the impact evaluation group through the Department of Highways Urban and Secondary Unit, which is the first official point the Department is involved in the process. The process then passes to the Project Priorities sub-phase.

(b) Project Priorities Sub-Phase

The Project Priorities Sub-phase is divided into 4 paths that are taken, based on the type road being considered. They are: (1) Urban - 3C cities and those with populations greater than 20,000; (2) Urban areas with populations less than 20,000: (3) Rural Primary Roads; and, (4) Secondary Roads, both urban and rural. In the Project Priorities Sub-Phase, system changes that have evolved into projects are assigned, on a local basis, priorities for consideration for construction.

(1) Urban (Cities over 20,000 population)

The established procedures already provide for public input to the Technical Advisory Committee during

the establishment of project priorities from direct public input and input from the Citizens Advisory Committee. Action Plan procedures include the input of economic, social and environmental factors into the process by the impact evaluation unit. Again, the unit will work through the Planning and Research Bureau which is the established contact point with the Department. The Department of Highways will recommend that the Technical Advisory Committee membership be expanded to include persons with expertise in the disciplines necessary to identify economic, social and environmental effects. Once projects are conceptualized and the local priorities are established, the process passes to the Project Formulation sub-phase.

(2) Urban (Cities less than 20,000 population)

The procedures already made provision for input from the public into the local public authority charged with establishing project priorities for the urban area. The input of economic, social and environmental effects into the local public authority from the impact evaluation unit has been added to the procedures. The unit will work through the Planning and Research Bureau which is the established Department of Highways contact point. Once local project priorities have been established, the

process passes to the Project Formulation sub-phase.

(3) Primary Roads (Rural)

In the rural areas, primary road project priorities are established by the Department's local representative, the Division Construction Supervisor. The procedures already provided for public input to the Division Construction Supervisor. He, being a member of the Department, may request the services of the impact evaluation unit to identify the economic, social and environmental effects to be considered while establishing project priorities. After the local priorities have been established, the process passes to the Project Formulation sub-phase.

(4) Secondary Roads (Rural and Urban)

The county commissions have provided for public input while establishing project priorities. The Action Plan provides for the input of economic, social and environmental factors to the county commission from the impact evaluation unit if requested. The unit would work through the established contact, the Planning and Research Bureau. The procedures do not preclude the input of economic, social and environmental effects

from sources other than the unit. Rather than the Department, in an effort to assure adequate consideration of the impact factors, will make the impact evaluation unit available to those county commissions that wish to utilize the Department's expertise. Once the priorities have been established, the process passes to the Project Formulation sub-phase.

(c) Project Formulation Sub-phase

The Project Formulation sub-phase is the same procedure for all types of projects. This point in the Action Plan process is the first time the varied project priorities enter the Department facilities in Helena. This is also a point at which the impact evaluation notebooks (see Section 4.4) for projects are begun. The impact evaluation unit is responsible for compiling the initial data for a notebook. The unit and the impact evaluation group edit the supporting data for proposed projects for adequacy of the consideration of economic, social, and environmental effects and for adequacy of public involvement in system planning. If the documentation is judged inadequate to support the proposed project within the system, the additional information required

to justify the proposed project is requested from the submitting organization. One criteria for judgement of adequacy is the defensibility of the proposed project should there be a legal suit brought against the Department to stop the project.

After project documentation has been judged adequate and the notebooks begun, funding analysis of the proposed projects is performed. Budgetary requirements of all proposed projects are established before the State priorities are selected from the local priorities. An Impact Evaluation Group function has been added to review the adequacy of impact evaluation before State priorities are adopted by the Director of Highways and concurred in by the Highway Commission. After approval, the impact evaluation unit will participate in the preparation of the PR-1 form, which requests Federal funds for a project. The next phase in the system will be the Location Studies phase.

4.5.3 Location Studies

During the Location Studies phase, projects will be developed to the point that detail design work may begin. The Location Studies provide for the identification of viable alternative locations for a project with adequate development and consideration

the economic, social and environmental effects of the alternatives. The public is kept notified of the project's development and progress through the system. A public hearing is held to provide for additional input into the system before an alternative location is selected. Throughout the Location phase - indeed, the rest of the system - documentation is being accumulated in the impact evaluation notebook. The basis for past decisions is always available for reconsideration. To accomplish these tasks, the Location Studies phase is segmented into three general areas -

. . . Alternative identification and accumulation of economic, social and environmental data

. . . Preparation of Environmental Impact Statement or Negative Declaration

. . . Location approval.

(a) Alternative Identification and Impact Data

The procedure already makes provision for sending a Letter of Intent to the public to notify those interested that the project is beginning in the

Location process. The Impact Evaluation Unit will establish a Project Notification List. This List will contain the names of persons, groups, and agencies expressing interest in a particular project. The Project Notification List provides the mechanism for keeping the public informed of the status of a project. Project Notification Lists will be maintained for each project in the system so that those interested in only a particular project will be notified of only that project. Names may be included on any number of Project Notification Lists. The Department of Highways considers public involvement to include adequate public notification of project status, and data under consideration as well as public input into the system.

The impact evaluation unit will work with the Area Engineer (the Project Manager) and the Division Construction Supervisor and a representative from the Federal Highway Administration in establishing criteria from the Systems Planning phase that should be considered in the Location Phase. The Area Engineer, with input from those same persons, will select the alternative locations to be evaluated. The impact evaluation group will offer suggestions and will review the criteria and alternatives to be considered. The group will also make suggestions as to the data -

both type and detail - that should be collected and the expertise required on the impact evaluation team.

The Preconstruction Supervisor will make provisions for accumulation of the impact evaluation team based on the suggestions from the group, the unit, the Area Engineer, and the representative from the Federal Highway Administration. As the team is assembled, the economic, social, and environmental data that was considered necessary for the project will be gathered. The team members will interact with each other to assure adequate accumulation of the economic, social and environmental factors required by the project and to achieve the desired interdisciplinary approach the Action Plan stresses.

Concurrent with the collection of data, the public -- via the project notification list -- will be informed of the alternative locations currently under consideration. The public will be asked to respond with comments or suggestions which will be input into the system.

After the economic, social, and environmental data has been gathered, the impact evaluation team will review the data and findings and evaluate the impact

of the alternatives. The Area Engineer will then review the impact data and decide if he has sufficient data upon which to base future decisions. If he decides the information is inadequate or that the studies have uncovered additional alternatives, he will recycle the project back to the point at which alternative locations were established and cycle through the process again. This iterative process - that is, recycling through the process, building upon the original data with each cycle - provides for consideration of multiple alternative locations and the refinement of alternative locations to the level of detail required to support the decisions that will be made at future points in the system. After as many iterations as are deemed necessary by the Area Engineer, he will make the decision to draft an Environmental Impact Statement (EIS)(there will be a significant impact on the environment as a result of the project) or draft a Negative Declaration (a documentation of the fact that there will not be a significant impact on the environment as a result of the project).

(b) EIS or Negative Declaration

(1) Environmental impact statement - The impact evaluation unit will assist in the preparation of the draft

Environmental Impact Statement and the draft Location Study Report.

The impact evaluation group will review the draft Environmental Impact Statement and the draft Location Study Report. The draft Location Study Report will contain:

- description of alternatives
- discussion of the anticipated economic, social and environmental effects
- analysis of consistency with community goals and objectives
- description of termini, type facilities and nature of service of highway, main features of alternatives
- maps.

The Group will verify that the reports contain the information accumulated on the economic, social and environmental effects and that the data is sufficiently detailed to substantiate a valid decision.

The Area Engineer will then distribute the draft Environmental Impact Statement and the draft Location

Study Report to the public for review and comment. A location public hearing will be held, in the vicinity of the project under study, to receive public comments. There can be more than one public hearing on a project, the number usually being dictated by the complexity of the project and the length of the proposed highway segment. The location public hearing should serve as an additional source of public input into the system. The Action Plan was designed so that the major input from the public would be received prior to the public hearing. The desire of the Department of Highways is to get the public involved in the project at the earliest possible point in the system. The questions generally raised at a location public hearing will hopefully have already been asked to the Department and salient points taken into consideration at an early stage in the process. Again, the Montana Action Plan concept seeks to get the public involved in the highway process - before a public hearing is held.

The Area Engineer, with the assistance of the impact evaluation unit, will assemble all the draft Environmental Impact Statement and draft Location Study Report data and comments and the answers to the comments.

The impact evaluation group will review all the assembled data and assure that questions which were asked have been answered adequately and that pertinent comments have been considered.

The Area Engineer, after reviewing all the documentation in the Notebook, will recommend a preferred location for Department of Highways consideration and approval. After approval, the impact evaluation unit will assist in the preparation of the final Environmental Impact Statement based on the selected location. The impact evaluation group will review the final Environmental Impact Statement to make sure the economic, social, and environmental effects have been accurately presented and are in sufficient detail to support a valid decision.

The Area Engineer will distribute the final Environmental Impact Statement to the required agencies and groups and the persons on the Project Notification List. The process then goes to the Location Approval sub-phase

(2) Negative Declaration - The Negative Declaration is prepared for those projects that, after a review of the economic, social, and environmental effects of the project

have been gathered by the team, are judged not to have significant negative impact on the environment. The impact evaluation unit will participate in the preparation of the Negative Declaration. The Federal Highway Administration reviews the Negative Declaration and approves the report or rejects the Negative Declaration and requires an Environmental Impact Statement be written for the project.

If the Negative Declaration is approved, it is distributed to the required agencies and the persons on the Project Notification List for review and comment. A location public hearing is then held for the project. If the project is of a minor nature, the Area Engineer may decide to forego the location public hearing at this point and decide to hold a combined location and design public hearing after preliminary design has been completed. If a combined hearing is decided upon, the project will proceed to the Design phase.

After the public hearing, the impact evaluation unit will participate in the assembly and review of all data and public hearing comments. The unit will

assist in preparing the answers to the questions raised at the public hearing. The Area Engineer, after reviewing the project data, will recommend a preferred location for approval by the Department of Highways. The project will then enter the Location Approval sub-phase.

(c) Location Approval

The Location Approval sub-phase is the point in the Action Plan process where the location that has been approved by the Department of Highways is distributed to the public and submitted to the Federal Highway Administration for approval.

The location that has been approved by the Department of Highways will be distributed to the persons on the project notification list. Notices will be placed in the State newspapers stating that the location for the project has been approved by the Department and is being submitted to the Federal Highway Administration for approval. Another notice will inform the public of location acceptance by the Federal Highway Administration. The project will then enter the Design Activities phase of the Action Plan process.

4.5.4 Design Activities

During project Design Activities, the detailed plans that are required to construct a highway segment are prepared. The Design phase is roughly divided into three general sections - (a) establishment of the design criteria, (b) preparation of preliminary plans, and (c) preparation of final plans. The Montana Action Plan development process has stressed the early involvement of the public in the first two phases of the process. In the Design Activities phase, detailed engineering plans are being produced to meet the criteria established during those earlier phases.

Due to the complexity of engineering plans, general public involvement was not stressed in the Design Activities phase. When a project reaches Design, the public and economic, social, and environmental input should have been gathered, considered, and decisions made that were acceptable to the majority of those involved. The project will already be considered to be in the best public interest. The public will be in support of the project before the detail design plans are begun.

(a) Establishment of Design Criteria

The impact evaluation notebook will be utilized by the Area Engineer and the impact evaluation unit to compile the design criteria that were established during the Systems Planning and Location phases of the process. The design criteria, those specifications to which the project must be designed and constructed, are compiled in a draft Design Planning Report. The Design Planning Report will contain the information that will serve as the guidelines for the design personnel, the restrictions and criteria which will dictate the form the final results -- the constructed project -- will take.

The Design Planning Report is distributed for review and comment. The impact evaluation group will be one of the review elements. The group will verify that the Design Planning Report accurately presents the design criteria that have been established during system planning and location studies. The impact evaluation unit will assist the Area Engineer in the preparation of the final Design Planning Report which will contain the revisions suggested by those reviewing the draft report. The project then enters the Preliminary Plans sub-phase.

(b) Preparation of Preliminary Plans

The imapct evaluation unit will participate in the preparation of the preliminary design plans for the project. The unit will also be involved in the preparation of the draft Design Study Report which is a report containing

. . . the design standards for the project

. . . the number of lanes

. . . the alignment geometry

. . . the location of structures such as bridges, retaining walls, and abutments

. . . maps.

The impact evaluation group will review the draft Design Study Report to reaffirm that the project is being designed to the standards that have been established in the earlier phases of the process. A design public hearing will then be held to present the detail design plans to the public for their comment. If the Area Engineer had elected to hold a combined location and design public hearing in the Location

phase, the hearing at this point would also present the location information for public comment. After the public hearing, the project will move into the preparation of Final Plans sub-phase.

(c) Preparation of Final Plans

Final engineering plans will be prepared for the project during this sub-phase. The impact evaluation unit will assist in the preparation of the final Design Study Report which will contain the comments received at the public hearing and the responses to the questions. The public will be notified that design approval will be requested from the Federal Highway Administration. After design approval is received from the Federal Highway Administration, the impact evaluation unit will participate in the preparation of the final engineering plans. When the final plans have been completed and the Federal Highway Administration has approved the final plans, the project will be at a point that a contract for construction can be let. The Action Plan process has been completed.

Consultants utilized by the Department of Highways are considered to be extensions of the Department staff.

Consultants, then, will be required to follow the Action Plan process in the development of projects under contract to them. The Montana Action Plan concept expects the consultant's staff to be interactive members of the total project task force.

At this point the Department of Highways re-emphasizes that a project -- at any point in the system -- may be recycled back to the last valid decision point. Projects may be recycled because (1) with the passage of time from system planning to project completion, the public transportation needs or desires have changed, or (2) data developed at a more detailed level have rendered a prior decision suspect or invalid.

The Montana Action Plan procedures can be summarized as follows. All information for a project and documentation to support each decision is contained in one place . . . the impact evaluation notebooks. The public is involved throughout the process. Public input is actively sought, especially in the planning phases where the main project concepts are established. The public is also kept informed as to the progress of a project through the use of the project notification

list. The economic, social, and environmental effects of proposed projects are considered in the System Planning phase so that decisions can be made in the best overall public interest.

The economic, social and environmental data required for a project are developed through an iterative process; In each cycle the data is developed to more detail, building upon information already collected. Projects are developed in an interdisciplinary atmosphere . . . persons with different expertise working together as a team to complete the project. The Montana Action Plan process has established three "levels" of impact evaluation: the unit, the team, and the group. The unit is the in-house specialists; the team, a task force of the disciplines required for a particular project; the group, a permanent body of multi-disciplined representatives from other agencies that assure full and adequate consideration of the economic, social and environmental effects of a project.

At any point in the system, a project can be recycled back in the process. This could be caused by discovery of information that invalidates a prior decision or by the passage of time during which the

public needs or desires had changed. Finally, the Montana Action Plan concept establishes a cooperative inter-agency dialogue between state departments . . . reinforcing the Department of Highways' desire to get everyone involved in the highway process.

URBAN AREAS
(3C and Cities over 20,000 population)

CITY-COUNTY PLNG BRD. CONDUCT STUDIES AS REQUIRED

OTHER COMPREHENSIVE MASTER PLAN ELEMENTS

CITIZENS ADVSRY CMTE. TRANSPORTATION SUGGESTIONS

PUBLIC & OTHER AGENCIES: TRANSPORTATION SUGGESTIONS

TECH ADVSRY CMTE TECHNICAL DIRECTION

EXISTING URBAN HWY SYSTEM

IMP EVAE UNIT ESE INPUT

DOH PLNG & RSRCH BUR MAKE STUDIES AS REQUIRED

National Transportation Planning Study
Highways Functional Classfctn & Needs Study
Safety Study
Traffic Study
Transit Study
Special Studies

IMP EVAL UNIT ESE INPUT IF REQUESTED

STUDY STAFF: IMPACT EVALUATION

STDY STAFF (STATE & LOCAL) REVIEW & ANALYZE DATA

RECYCLE IF MORE DATA NEEDED

STDY STAFF: PRODUCE DRAFT COMP PLAN TRANSPRTN ELMT

PLNG & RSRCH BUR REVIEW COMP PLN: TRANS ELMT

IMP EVAL GRP: REVIEW COMP PLN: TRANS ELMT

POLICY CODRD CMTE. REVIEW, APPRV COMP PLN, TRNSPTN ELMT

CITY-COUNTY PLNG BRD PUBLIC HEARING

CITY-COUNTY PLNG BRD: ADOPT COMP PLAN

RECYCLE PROBLEMS

PUBLIC, OTHER AGENCIES, CITIZENS ADVISORY CMTE, CITY COUNTY PLNG BRD, ETC: TRANSPTN ELMT UPDATING SUGGESTIONS

DOH, CITY COUNCIL, COUNTY COMSN: ADOPT COMP PLAN

COMP PLAN: TRANSPTN ELMT

IMP EVAL UNIT: REVIEW SYSTEM CHANGES

DOH PLNG & RSRCH BUR: REVIEW SYSTEM CHANGES

URBAN HIGHWAY SYSTEMS

STUDY STAFF REVIEW, ANALYZE UPDATING DATA MAKE RECOMMENDNS

POLICY CODRD CMTE DETERMINE NEEDS FOR UPDATING

RECYCLE TO UPDATE TRANSPORTATION ELEMENT OF COMPREHENSIVE PLAN

A-ED: REVIEW SYSTEM CHANGES

DIR HWYS: REVIEW, MODIFY, REJECT OR APPRV HWY SYSTEM CHANGES

RECYCLE PROBLEMS

HWY COMMISSION: RQST SYSTEM ADDITIONS/ DELETIONS

FHWA: REVIEW, APPRV SYSTEM CHANGES

RECYCLE PROBLEMS

PRIMARY ROADS
(Non-3C Urban and Non-Urban)

DOH PLNG & RSRCH BUR: MAKE STUDIES AS REQUIRED

National Transportation Planning Study
Highways Functional Classification and Needs Study
Safety Study
Traffic Survey
Transit Study
Special Studies
Sufficiency Rating

DTHER AGENCIES: SUGGESTIONS

PUBLIC: SUGGESTIONS

EXISTING PRIMARY HIGHWAY SYSTEM

MUNICIPALITIES SUGGESTIONS

DEPARTMENT OF HIGHWAYS SUGGESTIONS

IMP EVAL UNIT ESE INPUT

LOCAL PLANNING AGENCY (IF ANY REVIEW & RECOMMENDATIONS

IMP EVAL UNIT REVIEW SYSTEM CHANGES

IMP EVAL GRP REVIEW SYSTEM CHANGES

A-ED: REVIEW SYSTEM CHANGES

RECYCLE PROBLEMS

DIR HWYS: REVIEW, MODIFY, REJECT OR APPRV HWY SYSTEM CHANGES

RECYCLE PROBLEMS

HWY COMMISSION: REQUEST SYSTEM ADDITIONS/ DELETIONS

FHWA: REVIEW, APPRV SYSTEM CHANGES

RECYCLE PROBLEMS

PRIMARY HIGHWAY SYSTEM

SYSTEMS PLANNING — PROJECT PRIORITIES

SECONDARY ROADS
(Urban & Rural)

EXISTING SECONDARY HIGHWAY SYSTEM

PUBLIC: SUGGESTIONS

LOCAL PLNG AGENCY (IF ANY): SUGGESTIONS

MUNICIPALITIES SUGGESTIONS

OTHER AGENCIES, SUGGESTIONS

DEPT OF HWYS. SUGGESTIONS

IMP EVAL UNIT ESE INPUT

National Transportation Planning Study
Hwy Func Classfctn & Needs Study
ffic Study
Traffic Survey
Sufficiency Rating
Special Studies

COUNTY COMMISSION: REVIEW, MODIFY, ACCEPT OR REJECT SYSTEM CHANGES

IMP EVAL UNIT REVIEW SYSTEM CHANGES

IMP EVAL GRP: REVIEW SYSTEM CHANGES

DOH MGR SECONDARY-URBAN UNIT: REVIEW COUNTY COMMISSION'S RECOMMENDED SECONDARY SYSTEM CHANGES (ADDITIONS, DELETIONS, MODIFICATIONS)

A-ED: REVIEW CHANGES

RECYCLE PROBLEMS

DIR HWYS: REVIEW CHANGES

RECYCLE PROBLEMS

HWY COMMISSION RQST SYSTEM CHANGES

FHWA REVIEW, APPRV SYSTM CHANGES

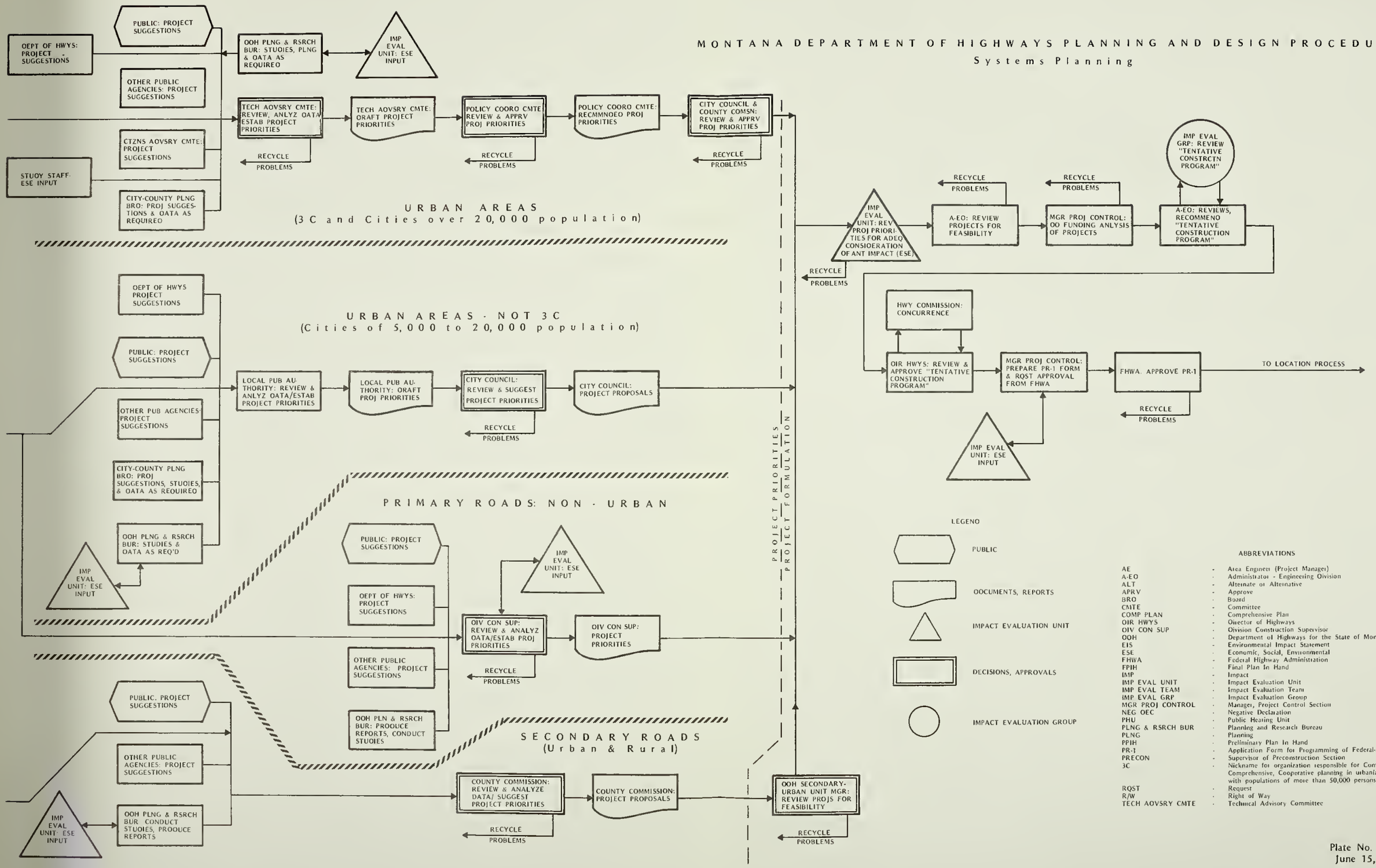
RECYCLE PROBLEMS

SECONDARY HIGHWAY SYSTEM

Plate No. 4-5A(1)
June 15, 1973

MONTANA DEPARTMENT OF HIGHWAYS PLANNING AND DESIGN PROCEDURES

Systems Planning



ABBREVIATIONS

AE	-	Area Engineer (Project Manager)
A-EO	-	Administrator - Engineering Division
ALT	-	Alternate or Alternative
APRV	-	Approve
BRO	-	Board
CMTE	-	Committee
COMP PLAN	-	Comprehensive Plan
OIR HWYS	-	Director of Highways
OIV CON SUP	-	Division Construction Supervisor
OOH	-	Department of Highways for the State of Montana
EIS	-	Environmental Impact Statement
ESE	-	Economic, Social, Environmental
FHWA	-	Federal Highway Administration
FPIH	-	Final Plan In Hand
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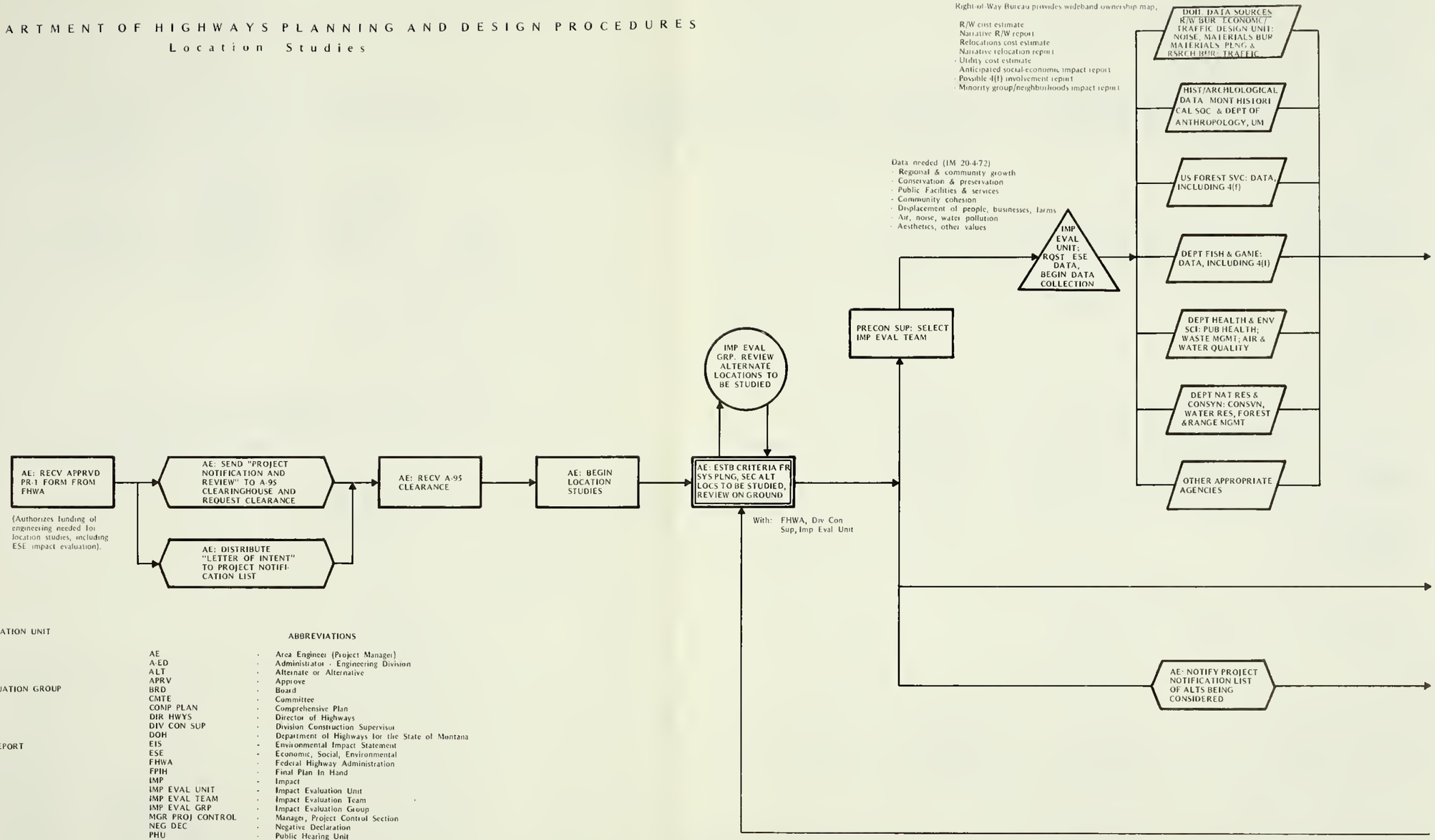
IMP EVAL UNIT	-	Impact Evaluation Unit
IMP EVAL TEAM	-	Impact Evaluation Team
IMP EVAL GRP	-	Impact Evaluation Group
MGR PROJ CONTROL	-	Manager, Project Control Section
NEG OEC	-	Negative Declaration
PHU	-	Public Hearing Unit
PLNG & RSRCH BUR	-	Planning and Research Bureau
PLNG	-	Planning
PPIH	-	Preliminary Plan In Hand
PR-1	-	Application Form for Programming of Federal-Aid Funds
PRECON	-	Supervisor of Preconstruction Section
3C	-	Nickname for organization responsible for Continuous, Comprehensive, Cooperative planning in urbanized areas with populations of more than 50,000 persons.
RQST	-	Request
R/W	-	Right of Way
TECH AOVSRY CMTE	-	Technical Advisory Committee

Plate No. 4-5A(2)
June 15, 1973

MONTANA DEPARTMENT OF HIGHWAYS PLANNING AND DESIGN PROCEDURES

Location Studies



LEGEND

- IMPACT EVALUATION UNIT
- IMPACT EVALUATION GROUP
- DOCUMENT, REPORT
- PUBLIC
- DECISION, APPROVAL
- IMPACT EVALUATION TEAM

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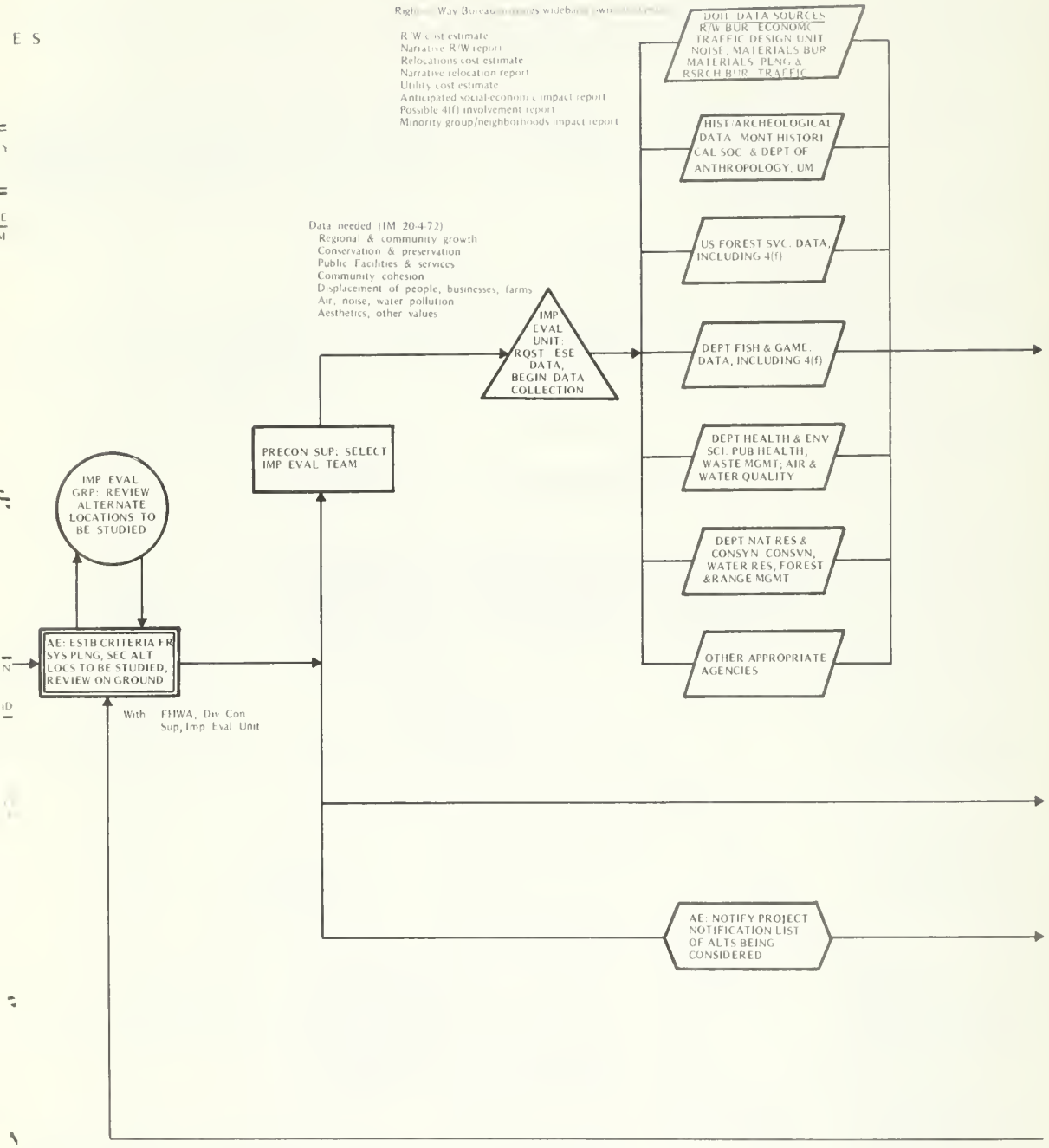
Plate No. 4-5B(1)
June 15, 1973



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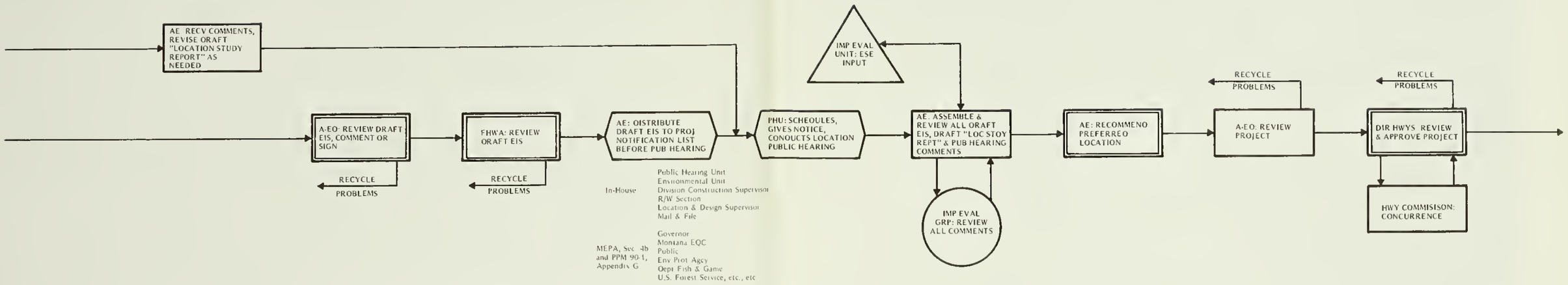
June 15, 1973



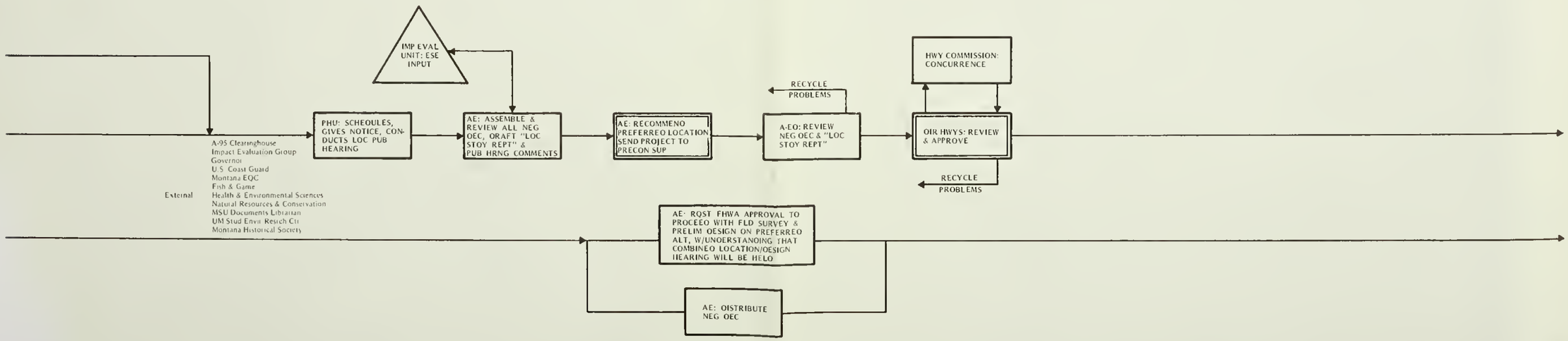
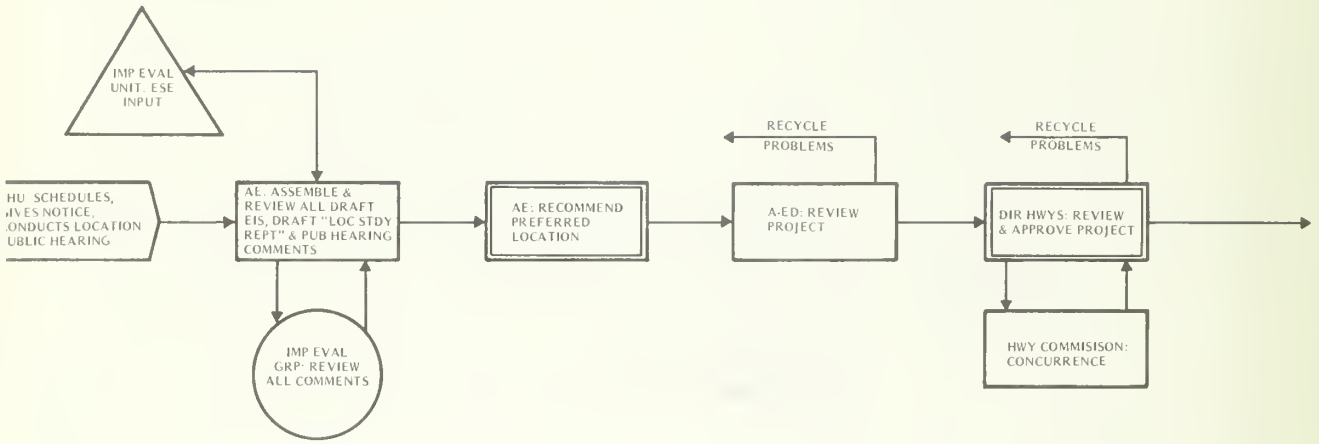


Plate No. 4-5B(3)
June 15, 1973



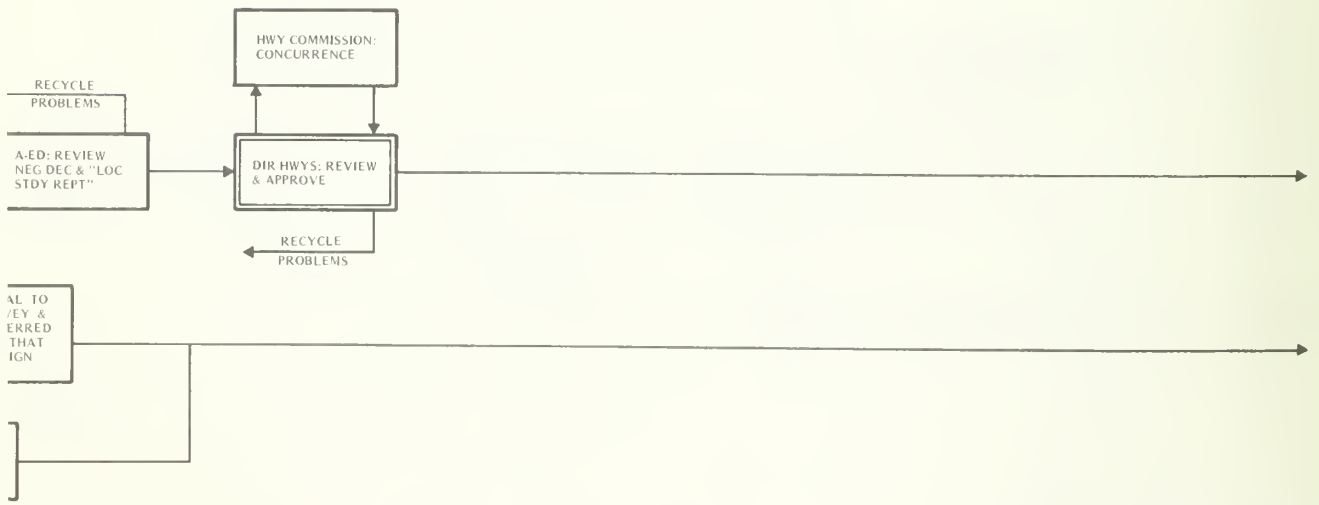
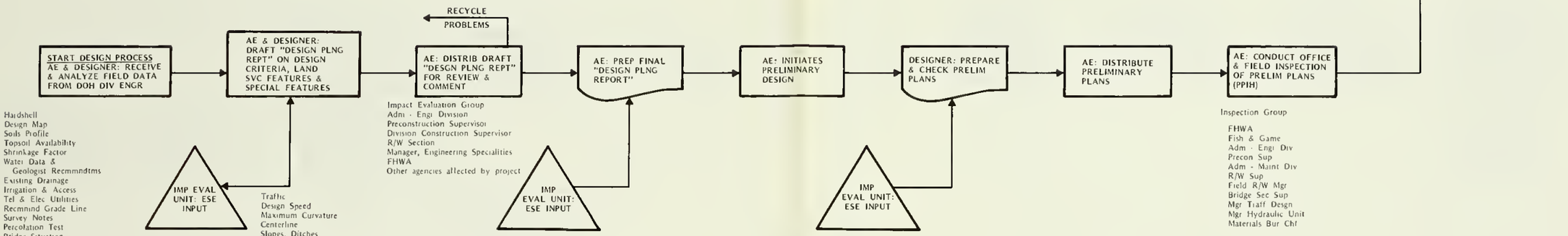


Plate No. 4-5B(3)
June 15, 1973

MONTANA DEPARTMENT OF HIGHWAYS PLANNING AND DESIGN PROCEDURES

Design/Project Development



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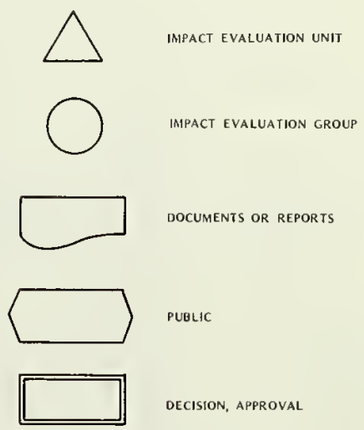
LEGEND



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June 15, 1973

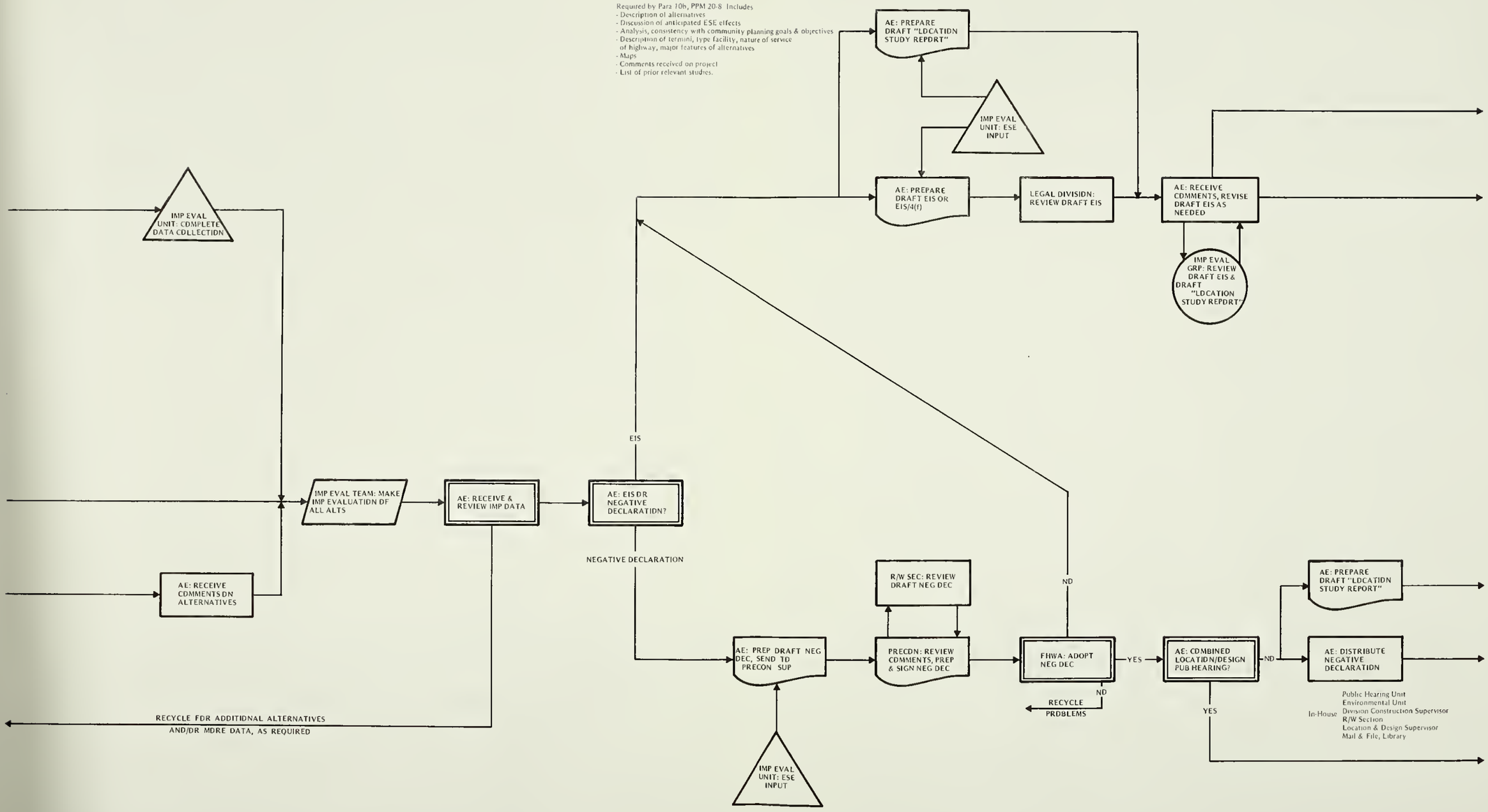
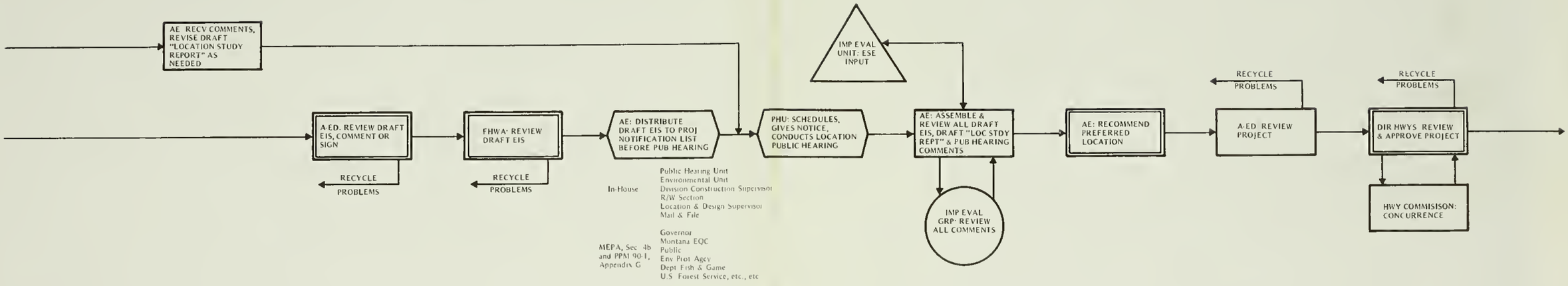


Plate No. 4-5B(2)
June 15, 1973



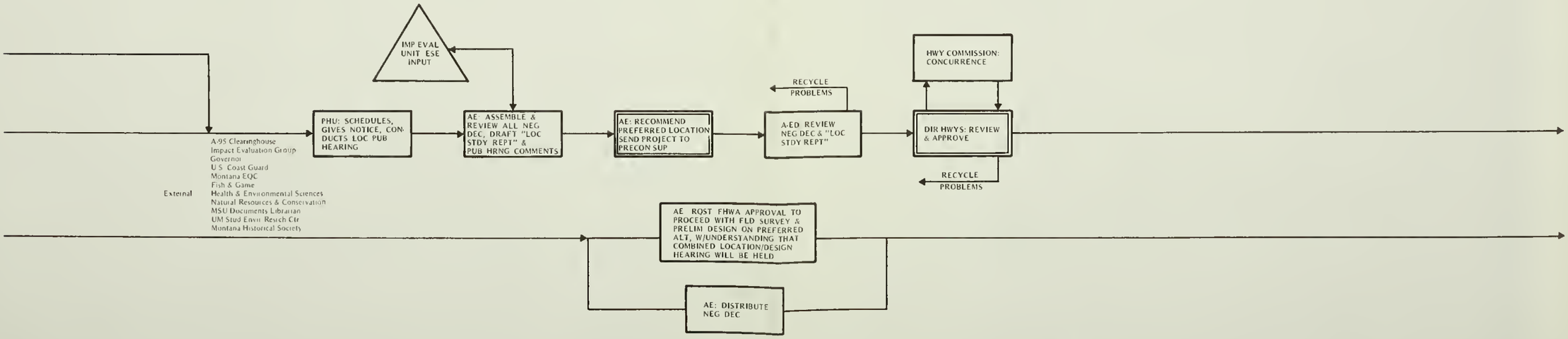
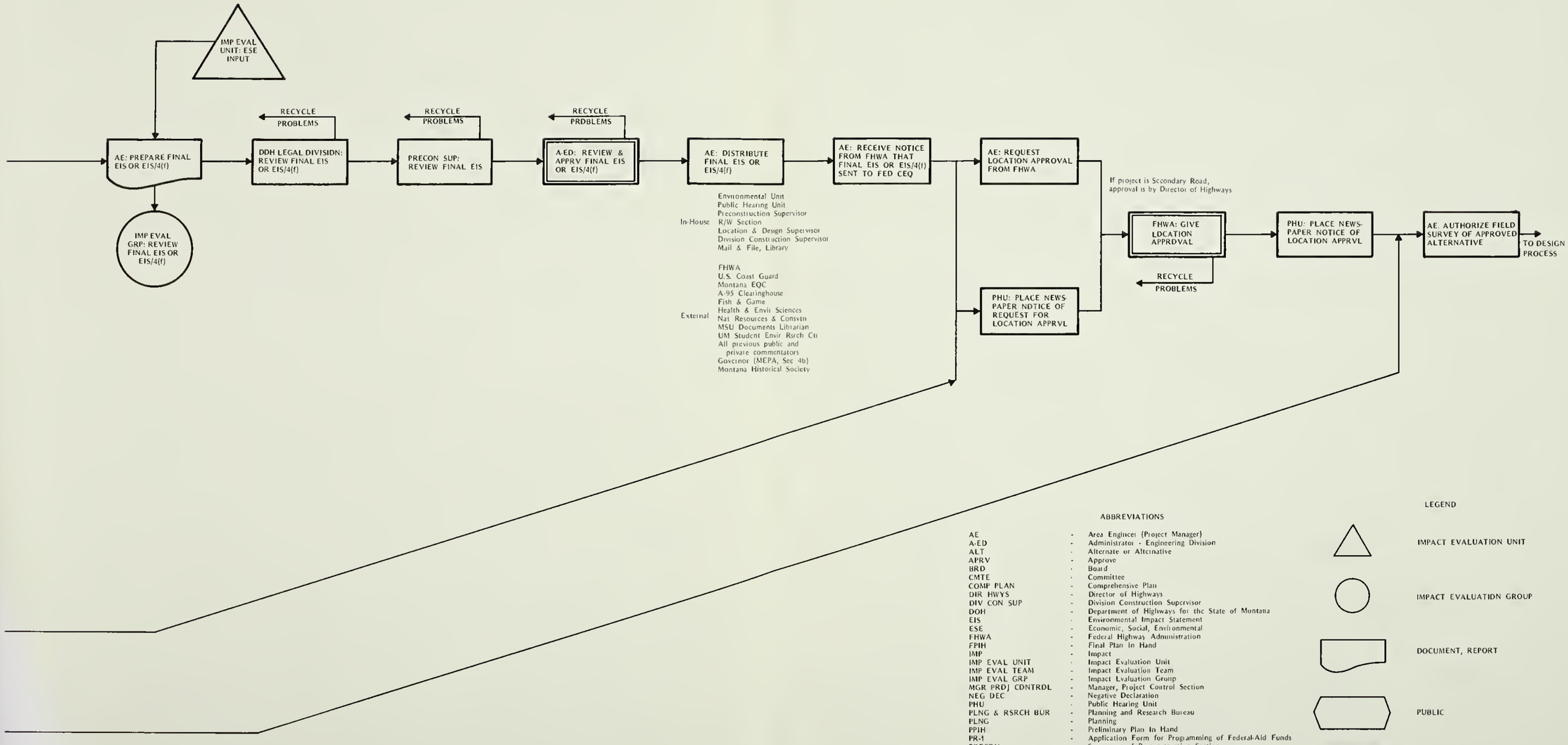


Plate No. 4-5B(3)
June 15, 1973

MONTANA DEPARTMENT OF HIGHWAYS PLANNING AND DESIGN PROCEDURES

Location Studies



ABBREVIATIONS

AE	-	Area Engineer (Project Manager)
A-ED	-	Administrator - Engineering Division
ALT	-	Alternate or Alternative
APRV	-	Approve
BRD	-	Board
CMTE	-	Committee
COMP PLAN	-	Comprehensive Plan
DIR HWYS	-	Director of Highways
DIV CON SUP	-	Division Construction Supervisor
DOH	-	Department of Highways for the State of Montana
EIS	-	Environmental Impact Statement
ESE	-	Economic, Social, Environmental
FHWA	-	Federal Highway Administration
FPIH	-	Final Plan In Hand
IMP	-	Impact
IMP EVAL UNIT	-	Impact Evaluation Unit
IMP EVAL TEAM	-	Impact Evaluation Team
IMP EVAL GRP	-	Impact Evaluation Group
MGR PROJ CONTRDL	-	Manager, Project Control Section
NEG DEC	-	Negative Declaration
PHU	-	Public Hearing Unit
PLNG & RSRCH BUR	-	Planning and Research Bureau
PLNG	-	Planning
PPIH	-	Preliminary Plan In Hand
PR-1	-	Application Form for Programming of Federal-Aid Funds
PRECON	-	Supervisor of Preconstruction Section
3C	-	Nickname for organization responsible for Continuous, Comprehensive, Cooperative planning in urbanized areas with populations of more than 50,000 persons.
RQST	-	Request
R/W	-	Right of Way
TECH ADVSRY CMTE	-	Technical Advisory Committee

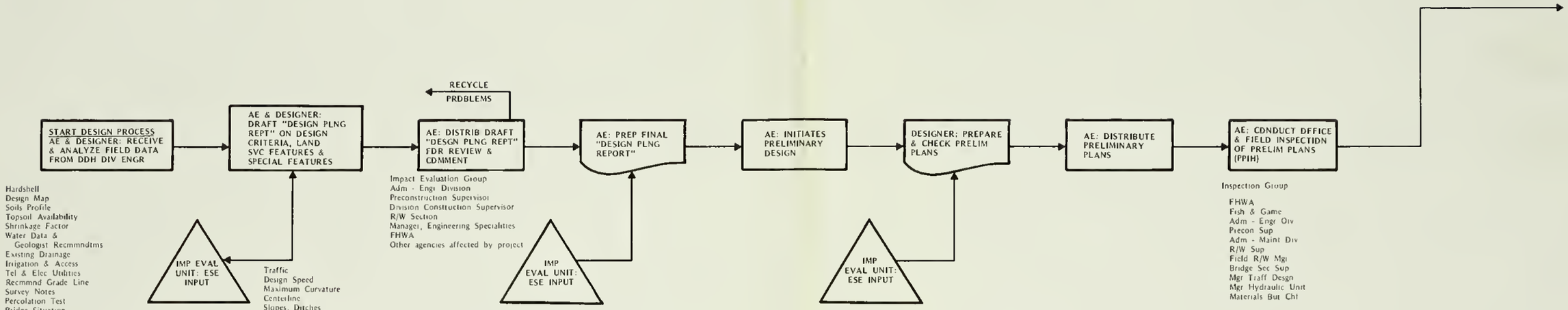
LEGEND

- IMPACT EVALUATION UNIT
- IMPACT EVALUATION GROUP
- DOCUMENT, REPORT
- PUBLIC
- DECISION, APPROVAL

Plate No. 4-5B(4)
June 15, 1973

MONTANA DEPARTMENT OF HIGHWAYS PLANNING AND DESIGN PROCEDURES

Design/Project Development



ABBREVIATIDNS

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A-ED	-	Administrator - Engineering Division
ALT	-	Alternate or Alternative
APRV	-	Approve
BRD	-	Board
CMTE	-	Committee
COMP PLAN	-	Comprehensive Plan
DIR HWYS	-	Director of Highways
DIV CDN SUP	-	Division Construction Supervisor
DDH	-	Department of Highways for the State of Montana
EIS	-	Environmental Impact Statement
ESE	-	Economic, Social, Environmental
FHWA	-	Federal Highway Administration
FPIH	-	Final Plan In Hand
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IMP EVAL UNIT	-	Impact Evaluation Unit
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PR-1	-	Application Form for Programming of Federal-Aid Funds
PRECDN	-	Supervisor of Preconstruction Section
3C	-	Nickname for organization responsible for Continuous, Comprehensive, Cooperative planning in urbanized areas with populations of more than 50,000 persons.
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R/W	-	Right of Way
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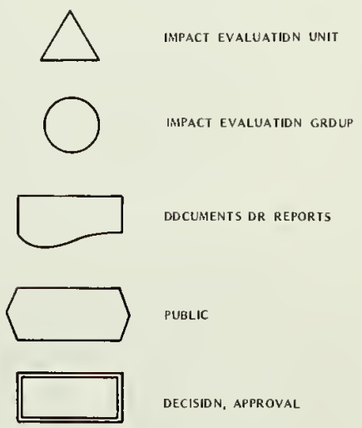

Plate No. 4-5C(1)
June 15, 1973

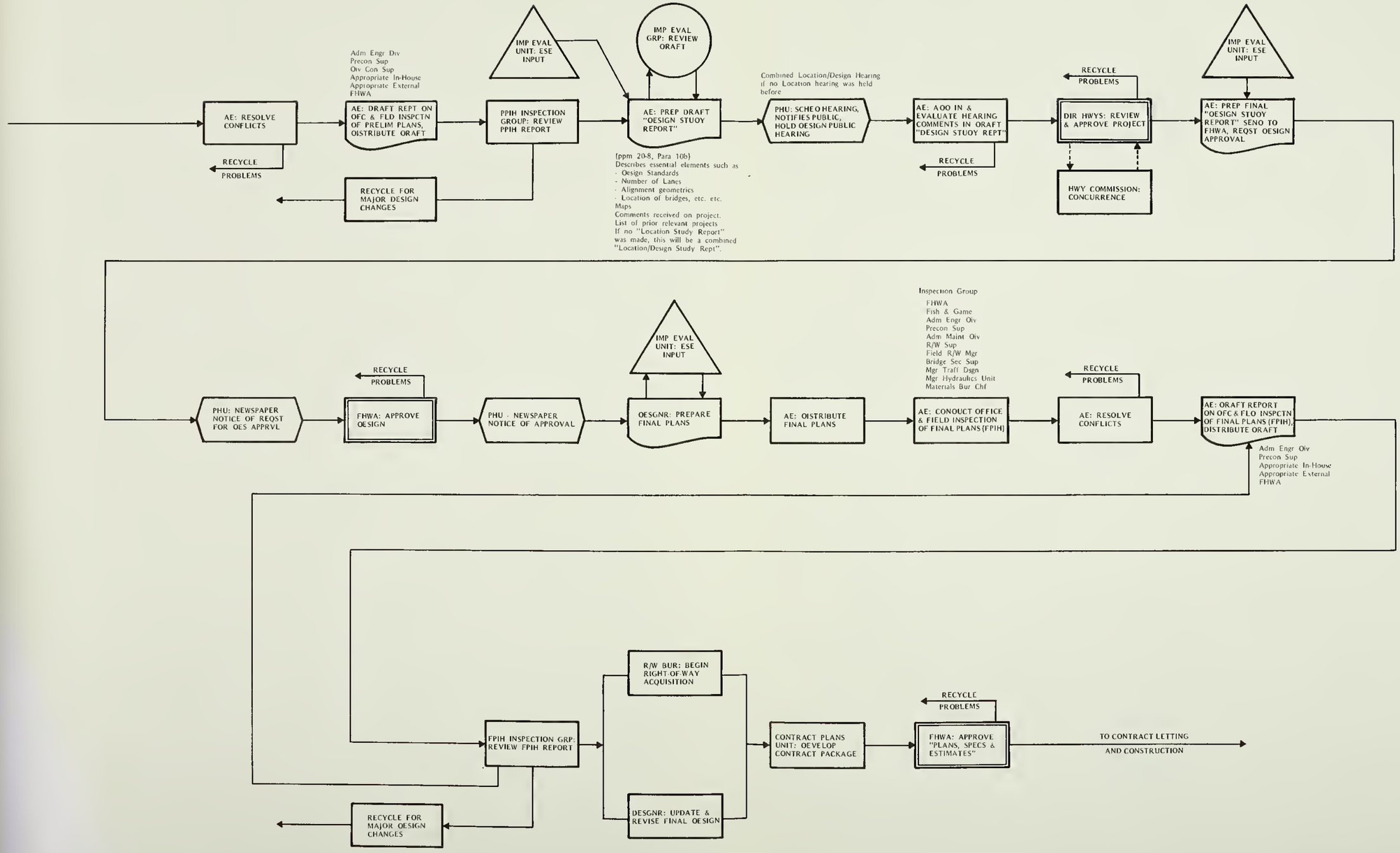

Plate No. 4-5C(2)
June 15, 1973

ACTION PLAN FUNDAMENTALS

5.1
Introduction

This Action Plan evolved from a study process tempered by a recognition of the four established fundamentals which govern Action Plan philosophy. These fundamentals look to

. . . the identification of the economic, social and environmental effects, both beneficial and adverse, of alternative courses of action

. . . the consideration of alternative courses of action including, where appropriate, alternative types and scales of highway improvements and other transportation modes, as well as the option of a no-highway-improvement

. . . the involvement of other agencies and the public in the highway planning and design process

. . . a systematic interdisciplinary approach to highway planning and design activities.

5.2
Identification of
conomic, Social and
vironmental Effects

5.2.1 Introduction

For effective highway planning and design, the identification of economic, social and environmental effects (both beneficial and adverse) of alternative courses of action is included in all stages of highway planning and design to the degree determined to be necessary for any particular stage. Accordingly, the Department of Highways has determined to build a basic competency in studying and identifying the impacts of certain highway improvements; that this competency will provide timely information so that the selection and consideration of alternatives will have appropriate influence; and that there be the ability to determine costs, financial and otherwise, of eliminating or minimizing any adverse effects whether economic, social or environmental.

5.2.2 Framework for Identification

For effective identification, it is necessary as part of an interdisciplinary effort, to consider systematically the economic, social and environmental effects of the various improvement alternatives, including a no-project alternative. This consideration will take place in each stage of the highway planning and design process in varying degrees of attention, whether it is

system planning, project formulation, location studies, or design activities.

The principal concern is the impact (economic, social and/or environmental) of the various improvement alternatives, including a no-project alternative, on

. . . regional and community growth

. . . conservations and preservation

. . . public facilities and services

. . . community cohesion

. . . displacement of people, businesses and farms

. . . air, noise and water pollution

. . . aesthetics and other values.

The checklist covering factors involved in the consideration of impact (economic, social and/or environmental) on these seven elements of human environmental concern is included in Plate 5-1.

5.2.3 Assignment of Responsibilities for Identification Activities

(While procedural responsibilities are indicated at appropriate points in the "Montana Department of Highways Planning and Design Procedures" (See Plate series 4-5A, 4-5B and 4-5C), specific responsibility assignments, not readily decernable, are spelled out in the following discussions. Within the "identification" area, impact evaluation specialists, grouped as an in-house impact evaluation unit is the technical organization involved in impact evaluation.)

(a) Impact Evaluation Information

The impact evaluation unit is responsible for providing information on social, economic and environmental effects of alternative courses of action during all stages of highway planning and design.

(b) Quality Control

The impact evaluation unit is responsible for controlling the technical quality of economic, social and environmental studies.

(c) Monitoring Research

The impact evaluation unit is responsible for monitoring current economic, social and environmental research.

(d) Monitoring Completed Projects

The impact evaluation unit is responsible for monitoring completed projects in order to evaluate the accuracy of past decisions and to evaluate the validity and adequacy of past impact analysis.

(e) Disseminating "State-of-the-Art" Information

The impact evaluation unit is responsible for disseminating "State-of-the-Art" information within the Department, and to appropriate interested parties.

5.2.4 Supplemental Identification Procedures

(The following procedural statements support and are in addition to those procedures indicated in Plate Series 4-5A, 4-5B and 4-5C.)

(a) Parallel Development of Data

In order that the development and selection of alternates and other elements of technical studies can be influenced appropriately, information on impact evaluation will be developed in parallel with alternatives and related engineering data.

(b) Effect on Specific Groups and Interests

The information on impact evaluation to be developed for each applicable project will indicate the manner and extent to which any specific groups and interests are beneficially and/or adversely affected by alternative proposed highway improvements.

(c) Information to Other Agencies and the Public

Information on or relating to impact evaluation will be made available to other agencies (Federal, state and local) and the public, through appropriate interest groups, during the beginning phase of each stage of highway planning and design activities.

(d) Participation of Outside Groups

Where appropriate, and particularly where local comprehensive and transportation planning groups exist, information on impact evaluation will be developed with participation of the staffs of local agencies and interested citizens.

(e) Estimation of Costs

Information on or relating to impact evaluation will be developed to include data sufficient to permit a reliable estimation of the costs, financial or otherwise, of eliminating or minimizing any identified adverse effects.

ECONOMIC
SOCIAL
ENVIRONMENTAL

IMPACT EVALUATION FACTORS CHECKLIST

Factor

COMMUNITY AND REGIONAL GROWTH

- Neighborhood growth and development
- Regional growth and development
- Accessibility
- Effect on land use
- Consistency with areawide plans
- Traffic service levels
- Adaptability to future transportation needs

CONSERVATION AND PRESERVATION

- Parks, historic and cultural sites and landmarks
- Areas of natural beauty, recreation or service value
- Water quality and flood control
- Conservation of natural resources/ecological
- Construction disruptions

PUBLIC FACILITIES AND SERVICES

- Educational facilities and services
- Religious facilities and services
- Health and welfare facilities and programs
- Social and cultural facilities and programs
- Recreational facilities and programs
- Public health, well-being and safety
- Emergency facilities and services

COMMUNITY COHESION

- Citizens aspirations and desires
- Neighborhood identity and cohesion
- Neighborhood shopping facilities
- Property values
- Taxes

DISPLACEMENT OF PEOPLE, BUSINESSES AND FARMS

- Displacement and relocation of persons and families
- Availability of housing
- Employment
- Distribution and intensity of economic activity

AIR, NOISE AND WATER POLLUTION

- Noise
- Air Pollution
- Water Pollution

AESTHETICS AND OTHER VALUES

- Perception of the road from the neighborhood
- Perception of the road by the driver
- Joint developmental potential
- Multiple use of highway ROW's

PLATE NO. 5-2

5.3
Consideration of Alternative Courses of Action

5.3.1 Introduction

Planning and design activities do not proceed logically without a sound and reasoned consideration of alternative courses of action and alternate solutions to obvious problems. A study of alternatives provides support for recommendations outlining specific courses of action. In turn, the results of valid studies of alternatives provide the decision-maker with sound reasoning in deciding an indicated action.

The Department of Highways is committed to a full and appropriate study of alternative courses of action and to appropriate consideration of alternate solutions to identified problem areas.

5.3.2 No-Highway-Improvement Option

The consequences of a "no-highway-improvement" option are to be established, as appropriate, with data of a level of completeness and of detail consistent with that developed for project alternates.

(The option of a "no-highway-improvement" remains open until such time that a project is let for bid.

However, with proper consideration, the "no-highway-improvement" option serves as a reference point for determining the beneficial and adverse impacts of other alternatives.)

(a) Responsibility for Consideration

Where the "no-highway-improvement" option is appropriate, the impact evaluation unit will collect pertinent data and make the impact evaluation of this option.

5.3.3 Selection and Consideration of Alternatives

As part of the Department of Highways planning and design process, a range of alternatives will be considered at each stage from system studies through final design.

(The selection of alternatives will include those necessary to the identification of any critical factors and will present all issues which should be exposed to study. Those to be considered will include, where appropriate, alternative types and scales of highway

improvement and other transportation modes. Alternatives which could minimize or serve to avoid economic, social and environmental disaffects are to be studied and described, particularly where adverse impact upon specific groups, and in relation to 42 U.S.C. 2000d-2000d/4, is evident. The key trade-offs among alternatives will be clearly stated in reports covering the consideration of alternatives.)

(a) Responsibility for Selection

(1) During the Systems Planning Stage, alternative selection will be part of the planning process.

(2) During the location/corridor studies stage, the Area Engineer, assisted by the impact evaluation unit, is responsible for the selection of alternates.

(b) Responsibility for Consideration

Where consideration is the direct responsibility of the Department of Highways, the impact evaluation team will develop the impact evaluation studies.

5.3.4 New Transportation Modes

Due to the nature of transportation problems within the State of Montana, dictated by a sparse population living in a large expanse of territory, the Department of Highways anticipates a limited involvement in any consideration of new transportation modes and the improvement of other modes of transportation. Ideally, these are matters which can be best considered, where appropriate, as part of the area transportation studies underway in the urbanized communities of the State (3-C process).

5.3.5 Non-Transportation Components

The impact of non-transportation components, e.g., replacement housing, joint development, multiple use of rights-of-way, will be considered during the process of impact evaluation studies so that any plans for non-transportation components can be coordinated with plans for transportation components.

(a) Responsibility for Consideration

Where consideration of alternatives is the responsibility of the Department of Highways, the impact evaluation unit, in cooperation with the Area Engineer,

will include a consideration of non-transportation components and, where appropriate, will develop information on coordinating factors.

5.3.6 Non-Agency Considerations

Through established procedures, other agencies and the public are advised of pending projects as well as the selection of alternates, and suggestions and recommendations are solicited.

(a) Responsibility for Consideration

The impact evaluation unit and the Area Engineer will give every consideration to suggestions from outside the Department, as a part of on-going impact evaluation.

(b) Responsibility for Review

The impact evaluation group will consider suggestions from outside the Department as part of its indicated review of Departmental proposals.

5.4
Involvement of Other Agencies and The Public

5.4.1 Introduction

In the planning and design of highway projects, an important objective is the development of highway components which

. . . minimize economic, social and environmental disaffects

. . . provide fast, safe and efficient transportation

. . . serve the best overall public interest.

In meeting this basic objective, the Department of Highways does not act alone. There must be early involvement on the part of other agencies (Federal, state and local) and the public. Accordingly, the Department of Highways has determined that increased opportunities for interested parties to express their views early enough in the study process to influence the course of studies (as well as actions taken), are in order. To this end, the Department has augmented its highway planning and design procedures with the purpose of assuring that information about the existence, status and results of studies will be made available to the public throughout the course of both impact evaluation and planning design studies.

5.4.2 Dissemination of Impact Information

(Information is to be made available to other agencies and the public throughout the duration of project studies and such information is to be as clear and comprehensible as practical.)

As appropriate, and at such times as indicated in the highway planning and design process, the public hearing unit will release information on the following:

(a) Selected Alternatives

Non-Department agencies and the general public will be advised of the alternatives being considered.

(b) Report on Study Findings

Non-Department agencies and the general public will be advised of findings covering the effects of alternatives, both beneficial and adverse, and the manner and extent to which specific groups are affected.

(c) Relocation Assistance Programs

Affected parties will be advised of right-of-way and relocation assistance programs and relocation plans.

(d) Proposed Project Development Schedule

Non-Department agencies and the general public will be advised of the proposed time schedule of project development, including major points of public interest.

5.4.3 Non-Department Participation

(Interested parties, including local governments and metropolitan, regional, state and Federal Agencies, and the public will be provided the opportunity to participate in an open exchange of views throughout the stages of project developments.)

(a) Notification Process

Initial involvement will be solicited through use of the established notification process where appropriate non-department agencies, local governments, civic and special interest organizations will be advised on proposed projects and the results of highway planning and design studies.

(b) Participation Process

The basic participation organization is the impact evaluation group, with a membership selected from non-department agencies and civic and special interest groups. The impact evaluation groups will review highway planning and design activities at intervals designated in the highway planning and design process.

5.4.4 Public Involvement Procedures

The notification process will continue to be the means of informing and involving the public (in addition to the required public hearings).

The impact evaluation unit is responsible for keeping appropriate notification lists current.

5.4.5 Utilization of Area-Wide Agencies

Where appropriate, the impact evaluation unit and the Area Engineer will solicit the assistance of agencies having area-wide responsibilities, in the coordination of viewpoints during project development.

5.4.6 Involvement of Area Transportation Organizations

The Department of Highways continues its participation in the area transportation process in urbanized areas. These area transportation planning organizations have the responsibility for insuring the consideration of economic, social and environmental impact of its proposed transportation plans.

5.5
Systematic Interdisciplinary Approach

5.5.1 Introduction

The purpose of a systematic interdisciplinary approach is to insure the integrated use of the natural and social sciences and the environmental design arts in planning and decision-making which may have an impact on man's environment. As a systematic approach it serves to assure that project development proceeds in an orderly manner and that the various aspects of many activities are coordinated and directed to projected completion. Utilizing an interdisciplinary approach, there is the assurance that proper consideration is given to all pertinent factors and that the critical issues in each alternative and the "trade-offs" between the issues are identified. The key is consideration of the impacts - - whether economic, social or environmental - - by specialists in several disciplines. The Department of Highways continues its systematic, interdisciplinary approach to its highway planning and design activities.

5.5.2 Interdisciplinary Organization

The interdisciplinary organization which has been created to augment the Department's systematic interdisciplinary approach is described in Section 4.3.

5.5.3 Recruitment and Training

(A reasonable use of the systematic interdisciplinary approach to highway planning and design activities and impact evaluation requires the recruitment and training of personnel with skills which are appropriate to add on a full-time basis, and the development of appropriate cover patterns, including management opportunities.)

The Department of Highways, through its Personnel Division, will develop an appropriate recruitment and training program geared to the development of specialists in impact evaluation.

5.5.4 Skills Enhancement

The Department of Highways, through its Personnel Division, will develop skills enhancement programs geared to providing Department personnel increased capabilities for effective work participation in an interdisciplinary environment.

ACTION PLAN COMPONENTS

6.1 Introduction

Fundamentals provide the basis or foundation for a meaningful consideration of economic, social, environmental and transportation factors. However, fundamentals cannot stand alone. There needs to be some assurance of an adequate decision-making process, an interrelation of systems and project decisions, a basis for assigning levels of action if different types of projects are to be assessed differently, and an identification of resources, both fiscal and personnel, available for effective evaluation. Accordingly, the sections making up this division of the Action Plan report the particulars of these important Action Plan components.

6.2
Decision-Making Process

6.2,1 Introduction

The Montana Action Plan introduces other State and local agencies, government officials, private groups, citizen committees, plus impact specialists into the entire transportation process. Through participation these "outside influences" become part of the decision-making process.

The approach to the preparation of the Montana Action Plan stressed analysis and modification to the existing process. The existing highway development system was analyzed to the depth of identifying all current decision points, the inputs to those decisions, and the reports or actions that result from those decisions.

The need for modification to the existing process resulted in the formal incorporation of three new elements into the highway development system. These are a Department of Highways interdisciplinary core group (impact evaluation unit), an ad hoc project team (impact evaluation team), and a high level interagency review group (impact evaluation group). These, plus more extensive public involvement, and revisions of the highway process, comprise a new broad base for

transportation decision-making in Montana. The Action Plan process has been designed to insure the consideration of economic, social and environmental effects, the development of alternate courses of action, and a more direct relationship between highway improvements and regional-local development goals and objectives. This is accomplished by the structure of the Department of Highways "Planning and Design Procedures", which identify the "where" and "how", in the highway process, these factors are to be considered and how others are involved in decision-making.

The success of the Montana Action Plan, as measured in terms of effective, popularly supported decisions, will be, in part, dependent on the extent to which the new elements have been inserted into the "right places" in the process and how well these instruments are utilized. A vast amount of energy expended in the preparation of the Action Plan was directed at placing the elements of the process in an arrangement that would insure a balance between new procedures and resources and an effective highway program.

The Action Plan does not comtemplate any changes in existing Department of Highways responsibility or authority. What has been substantially altered is the

process by which decisions are made and the information available to the Department in reaching a decision.

6.2.2 The Contribution of Others

The Action Plan provides for both formal and informal contribution by State and local agencies, and public and special interest groups in highway decision-making. Means of formal contribution include

. . . membership and active participation in the impact evaluation group

. . . membership and active participation on the impact evaluation team

. . . local agency preparation of system plans and project priorities

. . . Highway Department assistance to local agencies.

The impact evaluation group and impact evaluation team are new instruments created to increase the extent of economic, social and environmental considerations in highway planning and design. The Action Plan also provides for the expanded role of local

agencies involved in systems planning for their communities. This will be accomplished by encouraging local agencies to undertake or direct appropriate impact evaluation studies during the planning process. The Department of Highways Planning and Design Procedures, Systems Planning (Plate No. 4-5A), shows the expanded role of local agencies.

The procedures stress public involvement during systems planning and the availability of the impact evaluation unit to assist in local agency planning. A sginificant characteristic of the systems planning process is the interaction between the local agencies and the impact evaluation group. This linkage provides the opportunity for all levels of government and different special interests to exchange information, interact, and exert maximum consideration of economic, social and environmental factors in the formulation of plans. The group then will be the principal vehicle providing formal participation by others in highway decision-making.

The flow charts of the highway planning and design process titled "Montana Department of Highways Planning and Design Procedures" indicate that the impact evaluation group will be suggesting and reviewing action at

key points in systems planning, location and design. The impact evaluation group's formal participation is at those points in the planning and design process where this group can effectively influence what should be done, or determine the quality of the work that has been done. Impact evaluation group participation is greatest during systems planning and location. As the highway process gains experience with this group, it is possible that its role and extent of participation will expand. An objective in the initial formulation of this program has been to insure that the impact evaluation group does not become involved in trivia and is utilized at those times in the process when key decisions are to be made.

The impact evaluation team is the second vehicle for formal involvement by State and other agencies. At the beginning of the location process, in conjunction with the impact evaluation group, a decision will be made as to possible project alternatives and as to what economic, social and environmental investigations are suggested for this specific project. Different State agencies, universities, consultants and others will be asked to participate in the preparation of the project studies. Each participant will be a member of the impact evaluation team, which means that each

will be informed of what the other is doing, and the results of the other member's work, and will meet in face-to-face discussions of the proposed project. The impact evaluation team's influence on decision-making will be manifested in several ways. One will be the preparation of in-depth, professional interdisciplinary information concerning project alternatives and impact considerations. Another will be the dissemination of concise, documented economic, social and environmental investigations to the impact evaluation group and other interested agencies, and all persons responsible for project decision-making.

State agencies, private groups and local agencies are a very important part of the informal decision-making process. In this case "informal" is used to describe that influence on decision-making that is exerted without actual participation on any of the committees or in the formal deliberations. Access to information is an important tool in the influence on decisions. The expanded impact evaluation activity of the Department of Highways will require extensive data, and all persons that are in a position to inform the Department are also able to influence its decisions.

The Department of Highways Planning and Design Procedures make provision for the procurement and utilization of information and services relative to economic, social and environmental considerations throughout the highway planning and design process. The process will seek out information during Systems Planning, Location Studies, and Design Studies. State agencies, private groups, and others that have data will be drawn into the highway process and thereby participate in decision-making. This relationship is not a one-way process of seeking or absorbing information, but an interactive process -- the highway environmental unit interacting with outside special interest organizations. It is the continuous exchange of information, thoughts and objectives, and the interaction of diverse viewpoints that are encompassed by the term "informal decision-making".

The Department of Highways Planning and Design Procedures are structured so that other agencies or government officials have substantial indirect influence over highway department decisions. As no legislative changes are contemplated which would detract from the Highway Department's ultimate responsibility, the substantial role played by other agencies in decision-making is in the form of indirect influence.

The impact evaluation group will meet and discuss systems, location and design decisions. Staff of the member agencies will be on the impact evaluation team and the quality of membership on impact evaluation group is such that this group will address itself to situations from a position of knowledge and considerable professional experience. This means that the impact evaluation group and individual members of this group will exercise considerable influence upon highway decisions, particularly as to the economic, social and environmental aspects. The essence of the Action Plan is that decisions made by the Highway Department include full consideration of economic, social and environmental factors. Those agencies and government officials participating in this process will, by the nature of their involvement, exercise a form of indirect authority over decisions by the Highway Department.

6.2.3 Different Decision Processes

The Montana Highway planning and design process recognizes the difference in categories of projects, urban and rural considerations, and local requirements. In preparation of the Action Plan, consideration was given to a system of project levels which would specify the economic, social and environmental areas to be

investigated for different types of projects. This approach was rejected. The Steering Committee, Department staff, and consultants agree that what might at first appear to be a minor project could have significant economic, social and environmental impact. A TOPICS project could result in more traffic on a residential street and have substantial negative social impact while in some instances, construction of a new primary highway would have only positive impact. It was concluded that category of project does not dictate the manner or detail of economic, social and environmental investigation.

Montana Action Plan distinguishes between rural and urban and different classes of rural roads. Urban areas, particularly those over 20,000 population have planning commissions and a degree of local professional staff. The decision process takes into consideration the capability and requirements of geographic regions, and the structure of local governments and institutions.

The sensitivity of the decision process to different conditions is best shown in the Planning and Design Procedures - Systems Planning (Plate Series 4-5A). All roads in the urban area, regardless of jurisdiction, are treated as a single system. The urban road

system will reflect local planning goals and objectives and the potential of other modes such as mass transit.

The planning and decision process for the primary road system (outside the urban areas) is distinct from that of the secondary system which largely serves local requirements. Decisions affecting the primary system must take into consideration regional and statewide objectives as well as requirements of communities served by the system. As planning activity in Montana expands, the primary roadway system will become an important instrument of state planning.

When a project proceeds through Location and Design, the basic decision process becomes the same regardless of location or category of roadway. The procedures as shown in Location Studies (Plate Series 4-5B) and Design Studies (Plate Series 4-5C) are administrative processes to insure that the economic, social and environmental factors and other alternatives are appropriately considered on a project basis. As a project proceeds through the pipeline, the impact evaluation team, the impact evaluation group and the Area Engineer and others involved in the project determine the extent of economic, social and environmental investigations required on a project basis. All projects, whether they be contracted

to the consultants, Forest Highway projects, or other "types" of road projects, will be required to follow the procedures established in the Montana Action Plan.

6.2.4 Interstate and Federal Participation

In addition to highway crossings of state boundaries, Montana has an international border with Canada. Montana is also concerned with highways through the vast land holdings of the U.S. Forest Service of the Department of Agriculture, and the National Park Service of the Department of the Interior, plus extensive Indian reservations administered by the Bureau of Indian Affairs and the Department of the Interior.

Decisions which affect adjacent states are handled on an informal basis between the Administrator, Engineering Division and his equivalent for the State, with participation by the FHWA. Matters such as alignment, construction scheduling, and such items as location of roadside rests are worked out in joint discussion between the parties. Any further consideration of potential social, economic, and environmental effects would be accommodated by this same process of informal discussion between affected parties. The process applies to relations across the northern border with

Canada. No need is seen for any formal document.

The Department of Highways has a "Memorandum of Understanding" or a working agreement with the Forest Service dated January 1968. This agreement is an itemized step by step process designed to expedite the work and establish a full working understanding of each party's responsibilities. This current procedure assures proper interaction between both parties and provides the framework for amicable decisions concerning social, economic and environmental effects on roads through Forest Service lands.

Road improvements through the National Parks are infrequent and handled by the FHWA for the Park Service. Existing informal working relationships between the Park Service, FHWA, and the Department of Highways will adequately cover consideration of potential economic, social and environmental effects.

Sections of interstate freeway and primary roads of regional importance cross Indian lands. The Action Plan process of early notification, and involvement, should provide the appropriate procedures to achieve effective participation in decision-making by tribal governing bodies. If a formal "Memorandum of

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Agreement" is required, this can be determined during the Action Plan implementation period.

6.3
Interrelation of Systems and Project Decisions

6.3.1 Introduction

During the process of Systems Planning, many significant economic, social, and environmental factors, both beneficial and adverse, are identified. Often in Systems Planning criteria are established to maximize the beneficial effects or minimize the adverse effects. These criteria must then influence the decisions made in the future. As more detailed location studies and design work are done, additional economic, social, and environmental factors are identified that would have been difficult to anticipate in Systems Planning. Many times the effects of the new factors are such that an original decision may no longer be valid and its results are no longer in the best public interest. There is, then a definite need for reconsideration of the decision on the basis of changed conditions and new information. The Montana Action Plan provides for these needs . . . the forward flow of information and the ability to reconsider prior decisions in light of new information. The mechanisms utilized to meet these needs are the impact evaluation notebook (see section 4.4) and the monitoring and review functions of the impact evaluation group (see section 4.3).

The Department of Highways is, in general, a centralized operation with the primary planning and design effort carried on in the Department facilities at Helena. The State has been divided into districts with a Division Construction Supervisor in charge of each field office. The supervisor serves as the local contact point between the Department of Highways and the public.

Montana is the fourth largest state in the nation in land area and yet the population is less than 700,000 persons. There is no current state transportation master plan, although one is being prepared. Multi-modal transportation alternatives are currently primarily considered in the urban areas during systems planning. The private motor vehicle is generally selected as the feasible solution to the transportation of persons and goods.

6.3.2 Continuing Impact Identification

The Montana Action Plan procedures ensure that potential environmental, social and economic effects are identified in systems planning as well as location

and design. The identification is accomplished by local planning boards in urban areas with assistance from the impact evaluation unit (see Section 4.3) where necessary. In rural areas and in counties planning secondary roads, the impact evaluation unit is available to assist where necessary, or is available to perform the entire identification effort if the county does not have the required resources.

The Montana Action Plan procedures do not attempt to dictate the level of detail or the specific types of economic, social, or environmental information that will be gathered at any point in a project's life, from Systems Planning through Project Design. Rather, each project will be judged from its inception to completion for its own unique situation. Economic, social and environmental data will be gathered to the detail required for each decision.

The Department of Highways realizes that, at times, detail design work will be done for proposed projects that are still being considered in the Systems Planning phase in order that a valid decision as to its feasibility may be reached.

The impact evaluation notebook (see Section 4.4) will contain the data upon which decisions, from Systems Planning through Project Design, were made. The economic, social and environmental data and their related effects will be contained in the notebook. These data will be available throughout the life of a project for review and reconsideration. Design criteria that were established during Systems Planning to reduce or eliminate an impact that was identified at that early stage in a project's existence will be carried forward to be incorporated into the Design Planning Report (see Section 4.5). Those criteria will be influenced and reinforced by any further data that are gathered as the project proceeds from system concept through location and design. With all data - both positive and negative - concerning a project documented and in one place, the information tends to build upon itself to the point that effects that were overlooked or underdeveloped become obvious to the persons involved with the project. The data are developed to a more detailed level with each investigation to the point that all pertinent economic, social and environmental effects are identified and considered when a decision is made.

At each decision point the decision-maker has all data that have been gathered to date so that he is in

a position to make a more intelligent decision. If a decision requires more detailed study, the investigators can build upon data that are available to the level of detail the decision requires.

Because of the centralized operation, the impact evaluation unit will be involved with a project from the time that it is considered in Systems Planning until the time that it is constructed. The unit will be involved in the design of the project as well as in the identification and evaluation of economic, social, and environmental effects. Thus, because the impact evaluation unit is comprised of disciplines other than engineering, projects will be conceived and developed in an interdisciplinary environment.

In order to have a check and balance effect on the impact evaluation unit and the Department of Highways, the Montana Action Plan procedures established an impact evaluation group. This group will be composed of representatives from other state agencies and the public (see Section 4.3). Each member will be representing another discipline making the group a multi-discipline unit. The impact evaluation group will assure that the impact evaluation unit has identified

all pertinent economic, social, and environmental effects and developed the data in enough detail to serve as a valid basis upon which to make each particular decision. The impact evaluation group will be a permanent body and will thus lend continuity to projects and Systems Plans. As data are developed and projects are reviewed, the impact evaluation group will be in a position to review the former decisions in light of new developments and to recommend recycling the project back to that point at which the last valid decision was made.

The Department of Highways continually strives to involve the public in the decision-making process. Though, by law, the actual decisions must be made by the Department of Highways, the decision-maker is influenced by the data upon which the decisions are made and by the expressed desires of the public. Public input is sought throughout the Action Plan process, beginning with input into Systems Planning. As members of the public, individuals or groups or organizations, indicate that they desire to be involved in a project, their names and addresses are entered onto a project notification list. As a project passes through the system, information concerning the development of the project and decisions reached on the project will

be sent to those expressing interest for review and comment. Persons or groups may be added to a project notification list at any time by indicating that they want to receive project information. At various points in the process, information or comments will be sought from the public, thus keeping the public continuously involved in the Action Plan process.

6.3.3 Reconsideration of Earlier Decisions

The impact evaluation notebook will follow a project through all highway planning and design phases carried out by the Department of Highways. The notebook will be the repository for economic, social and environmental data, as well as for documentation supporting project decisions.

With all data and documentation in one place, the person or group involved with a project at any point in time will have, for review, the basis for past decisions. As new or more detailed data are developed and the information revises the premise of past decisions, the responsible party at that point is able to reconsider the past decision in light of the new data. The responsible party will recycle the project back to the point in the system at which the last valid decision was

made. A project may be recycled at any point in the system as far back in the system as required by the situation.

The impact evaluation group, serving in their review capacity, will be in a position to reconsider prior decisions throughout the project. Serving as a monitoring unit to the Department of Highways, the group will assure that the Department has considered economic, social, and environmental data in sufficient detail to substantiate each decision.

In addition to the continual monitoring of projects, the impact evaluation group will annually review each project when it is reviewing the Tentative Construction Program (see Section 4.5). Each project will be reviewed for viability at that time to assure that each project continues to warrant consideration. This procedure will assure a formal review of each project, at least annually, in addition to the continuing reviews undertaken during the course of project development.

6.3.4 Responsibility for Continuing Coordination

The need for close coordination between the activities of Systems Planning and those of Location and Design

has always been realized. In order to assure that there will be continued coordination, the Action Plan process involves the impact evaluation unit as an interactive member throughout the entire process. Additionally, the impact evaluation group serves a review function so that it too may lend to the continued coordination required in the system.

The centralized organization of the Department of Highways also assures that there will be interaction between Systems Planning and Location and Design. The personnel involved in Systems Planning are the same personnel involved in Location and Design. From this fact there has to be a continuing coordination of effort throughout the entire processes of the Action Plan.

6.4 Levels of Action by Project Category

The Montana Action Plan was developed with no effort made to identify specific levels or items of economic, social, or environmental data to be collected or considered, based solely on the category or type of project. There has been agreement that such a system of categorization could result in a perfunctory examination and elimination of factors that might have significant impact on a project. The concept utilized in the Montana Action Plan has been one of continual accumulation and refinement of data to support each decision, with a monitoring group to assure adequate data has been assembled for each decision. This concept supports a flexible, systematic approach responsive to each unique situation.

6.5
Fiscal and
Other Resources

6.5.1 Introduction

Resources to implement the Action Plan include personnel; valid social, economic and environmental data; and funds for the procurement of personnel and services.

The Department of Highways has certain non-engineering professionals who will provide the nucleus of the impact evaluation unit. If needed, additional personnel will be acquired during the implementation process. During this period, the Department will determine the initial balance between internal staff, personnel from other agencies, and the need for consultants. Several State departments have indicated the availability of economic, social and environmental specialists and it is desirable to make maximum use of these resources. The use of specialists from other agencies has certain advantages, particularly to a state such as Montana with limited finances and professional personnel. By contracting for services with other agencies, the Department of Highways can be assured of highly qualified personnel and at the same time achieve a closer degree of mutual understanding between agencies.

6.5.2 Department of Highways Resources

The Department of Highways has on its staff, a

number of non-engineering specialists including a horticulturist, a landscape architect and a biologist. These will make up the initial care staff for the impact evaluation unit.

The Department is committed to designation of an impact evaluation coordinator to head the impact evaluation unit. This person will have management experience in addition to several years of appropriate professional experience. The extent of additional personnel employed by the Department will be determined during the implementation period. At this time availability of personnel from other agencies and consultants will be weighed against the value of additions to Department staff.

The Department of Highways can fund the impact evaluation studies required by the Action Plan. This includes the employment of additional personnel and the financing of services by other agencies or consultants. Money for this purpose will come from several sources. Work by the impact evaluation unit on systems planning will be financed by planning and research funds; general investigations and review of "state-of-the-art" information from the administrative account; and all work on projects subsequent to the approval of the

PR-1 form will be charged against preliminary engineering. Work by other agencies or consultants will be financed by the same sources. However, contracts will provide only for specified research as a team member, group members time will not be reimbursable. The Department has the capability to make budget transfers to finance these activities during fiscal 1973-74 and no problem is foreseen in the availability of funds for this purpose. Financing of work in subsequent years will be included in the annual budget based on anticipated requirements.

6.5.3 Non-Department Resources

(a) State Agencies

The government of Montana has 20 departments, including the Montana Environmental Quality Council, an agency of the Legislative Assembly rather than an Executive Department. A member of these agencies has either particular areas of concern or resources available to the Department of Highways in the identification and study of economic, social and environmental impacts. Eighteen of the 20 agencies participated in development of the Action Plan, serving on a "State Agencies Liaison Group" (see Appendix A). Two agencies (Departments of

Administration and Livestock) were determined to have functions not germane to transportation or highway planning and development, nor to ESE considerations. In addition to the Department of Highways, five of the agencies served on an "Action Plan Steering Committee" (See Appendix A). All of the 20 agencies were queried on their areas of concern and resources available to Department of Highways. A review of the return indicates the availability of resource persons from the following related disciplines:

Air Pollution Control

Air Quality Control

Anthropology

Archaeology

Biology (Fish Management)

Biology (Game)

Biology (General)

Biology (Pollution Control)

Earth Sciences

Ecology (Aquatic)

Ecology (Game)

Ecology (Environmental Planner)

Economics (Natural Resources)

Environmental Sciences

Geology

History

Hydrology

Library Sciences (Historical)

Meteorologist

*Planning (Community)

Planning (Housing Supply)

Planning (Industrial)

Planning (Land)

Planning (Recreation)

Planning (Resource)

Planning (Rural)

Planning (Water Resource)

Range Management

Resource Management

Systems

Sociology

Soil Sciences

It is not expected that all such resource persons will be needed for assignment to impact evaluation teams. A select few will serve as members of the impact evaluation group. And some will serve as a member of impact evaluation teams.

The use of these resource persons will be the subject of appropriate Memorandums of Understanding to be negotiated with various State agencies, as well as the University System (see Section 7.3).

(b) University System Resources

There are six institutions of higher learning in the university system. These are located in Missoula Bozeman, Butte, Havre, Dillon and Billings. Faculty and other staff are available from these resources on a consultant contract basis to the Department of Highways.

(c) Federal Agencies

The Department of Highways invited 44 local, state or regional offices of various Federal agencies to participate in the development of the Action Plan. Some 13 offices replied to the invitation. It is assumed these offices will be available for consultation on specific problems. No formal agreements are anticipated or desired.

7 IMPLEMENTATION AND REVISION

7.1 Introduction

The Action Plan exists essentially as a set of revised procedures for the conduct of highway planning and design studies, with particular attention focused on an impact evaluation process for consideration of economic, social and environmental factors. Due to the requirements for increased public participation, other agency involvement, and a more refined interdisciplinary approach to impact evaluation, implementation becomes an acute factor. There have been earlier designations of certain responsibilities concerned with specific activities in the consideration of economic, social, environmental and transportation factors. These assignments do not, however, provide for responsibility for the overall implementation of the Action Plan. This responsibility designation must be made.

From a pragmatic standpoint, the Action Plan cannot be fully implemented by its initial adoption. Therefore, there is need for an implementation schedule. This will establish outside dates by which prescribed actions will be complete and in effect.

The Action Plan itself cannot be a static document. Revisions will be necessary to meet changing conditions and to assure that better means of impact evaluations, as these develop, can be included in the Action Plan.

These possibilities for revision suggest adequate provisions to accommodate revision of the Action Plan.

7.2 Responsibility for Implementation

The Administrator-Engineering Division, Department of Highways, will be responsible for the implementation of the Action Plan.

7.3 Implementation Schedule

The Department of Highways establishes the following schedule for Action Plan Implementation.

7.3.1 The Action Plan

Effective November 1, 1973, this Action Plan will be the Department of Highways planning and design procedures.

7.3.2 Agreements with Other Agencies

Prior to November 1, 1973, the Department will augment its personnel resources for impact evaluation by negotiating agreements, as appropriate, with other State agencies and the University System to provide, on call, specialists to serve as impact evaluation team members.

7.3.3 Reviews

Beginning January 2, 1974, the Department of Highways will initiate reviews of the Action Plan to determine the following:

(a) The need for changed public involvement procedures.

(b) The need for additional in-house specialists for assignment to the impact evaluation unit.

7.4 Revision of Action Plan

7.4.1 Introduction

Revisions are either major or minor. Minor revisions can be effected within the Department of Highways. Major revisions are those which, through implementation, would seem to lessen the effect of impact evaluation, other agency and public involvement, the systematic interdisciplinary approach to impact evaluation, and consideration of alternatives, including the no-project alternative. Major revisions will require FHWA approval.

7.4.2 Procedure for Revision

Any proposal for revision of the Action Plan will be submitted to the Administrator-Engineering Division, who will submit the proposal to the impact evaluation group (with or without comment) for review. After review, the proposals, including all comments and recommendations, will be submitted to the Director of Highways. If approved, minor revisions will then be implemented; major revisions will be submitted to FHWA for concurrence.

7.5 Consistency With Existing Laws and Directives

There are no known inconsistencies stemming from existing laws and directives which would hamper or prevent implementation of this Action Plan; therefore, this Action Plan can be implemented within the scope of existing authority.

APPENDICES

APPENDIX A
DEVELOPMENT OF MONTANA ACTION PLAN

A.1 Introduction

Those concerned with the formulation of the Montana Action Plan determined to address their work to the development of highway planning and design procedures providing adequate provisions for considering economic, social and environmental effects of projects and proposals throughout the whole process. There were two essential questions: (1) what should be done?, and (2) who should do it? Admittedly, these questions should be answered clearly and in the least amount of space. Therefore, process flow charts become the heart of the plan. These flow charts, in turn, would have to be supplemented by a narrative on the process (as needed), and other narrative selections addressing specific problems which could not be clarified by symbols on process flow charts.

The three flow charts (systems planning, location, and design) should be so constructed that, both to the highway specialist and the average lay reader, it is immediately apparent "who" is doing "what", and the sequence in which "what" is being done. Further, those steps in the highway process which are new because of the Action Plan should be immediately identifiable.

It was determined that much of the effort should be devoted to a thorough analysis of the pre-Action Plan highway processes of planning, location and design, to answer these questions:

(1) To what extent is the Department of Highways currently fulfulling the four Action Plan fundamentals (identification of impacts, consideration of alternative courses of action, involvement of other agencies and the public, and use of a systematic, interdisciplinary approach)?

(2) What new steps are needed in the process?

(3) What current steps need to be revised, e.g., a greater depth of effort, a new place in the sequence, total elimination, etc.?

The work of this analysis was a learning process for all involved. Originally, it was planned to present two sets of charts and narratives -- the "old process", or pre-Action Plan procedures, and the "new process". As work progressed, it became apparent that only one combined set of charts and narratives need to be used, showing those old processes still of value, and including the new processes, in their proper sequence, clearly identified by a graphics technique.

A.2 Organization

The action plan was developed with the work and contributions of three bodies: an In-House Group, of the Department of Highways; a liaison group from various State agencies; and an interagency steering group. There were also contributions from an informal "citizens and special interests group".

A.2.1 In-House Group, Montana Department of Highways

The Director of Highways, the State's chief highway executive, is responsible for development of the Action Plan. Of his high-level staff, the officer most deeply involved in and affected by the Plan is the Administrator - Engineering Division. Therefore, major authority and responsibility for Plan development and implementation were delegated to this Administrator.

The Engineering Division Administrator appointed an Action Plan Coordinator, an engineer on his staff who is also Manager of Engineering Specialties. The Action Plan Coordinator requested a representative from each major functional group in the department, to contribute to and review development of the Plan. Of these functional groups, two most-affected group

heads devoted much of their effort to the "heart of the Plan", the process flow charts. These two were the Chief, Planning & Research Bureau, and Supervisor, Preconstruction Section. These two group heads also worked closely with the Action Plan Steering Committee, and the State Agency Liaison Group.

The Department of Highways engaged the services of a private consultant to assist in the day-to-day spade-work and writing of the Plan. The consultant, VTN INC., of Helena, used the following staff:

(1) An environmental Planner, with background in planning, urban design, and management.

(2) A Transportation Planner, with background in traffic and transportation.

(3) A Systems Analyst, with background in management and operations research.

(4) A Research Assistant.

A.2.2 State Agency Liaison Group

By direction of the Governor of Montana, each

cabinet-level/executive department appointed a liaison person to assist the Department of Highways in developing the Action Plan. The Legislative Assembly's Environmental Quality Council also sent a representative. The group met in round-table sessions to discuss the contributions the agencies could make to Action Plan goals, to describe their processes for reviewing Department of Highways programs and projects, and to review progress on Plan development.

A.2.3 Action Plan Steering Committee

This body was an extension of the State Agency Liaison Group. Its meetings had greater frequency and depth of effort than its parent group. It consisted of representatives from the six State agencies most deeply involved in economic-social-environmental areas, plus Highways and FHWA personnel. This was the group most responsible for progressive action in charting and improving the Systems Planning phase of the highway process; it also made significant contributions to the Location and Design phases. Its gatherings were "skull sessions" or "brainstorm meetings", concentrating on details of ESE impact identification and other-agency involvement in the processes. These

meetings were characterized by free, open, frank, and sometimes vehement discussion. Its contributions were probably the most significant of any outside agencies to the Action Plan.

A.3 Public Involvement

The Department of Highways used the usual methods of advertisements, news releases and public meetings to inform and involve the public. It was felt, however, that the most significant contributions could be gained through individual invitations for groups to contribute to the plan.

A personal letter from the Director of Highways, explaining the Action Plan and enclosing the FHWA fold-out, Process Guidelines: The Action Plan, was sent to each of the 150 State legislators. Replies were received from _____ of them. (See list, end of appendix)

Letters with the fold-out and an MDH discussion paper, Montana Action Plan Considerations, were sent to the nearest local, State or regional office of various Federal agencies. There were 44 of these Federal offices.

Another letter, inviting participation and enclosing Montana Action Plan Considerations, was sent to the following:

56 Boards of County Commissioners

126 Mayors of Montana citys and towns

63 Local city-county, county or city planning boards or planning staffs

11 College or university presidents (six state university systems, private colleges, three community colleges)

54 College or university department heads

67 Chambers of Commerce

13 Local or regional development corporations

9 Indian Tribal Councils

6 Indian reservation superintendents

6 Local League of Women Voters chapters

74 Associations or Special Interest Groups (e.g., Wilderness Society, Sierra Club, League of Conservation Voters, labor organizations, farmer organizations, trade and business associations, Indian associations, etc.)

485 Total

The Department sent a letter including PPM 90-4 and Montana Action Plan Considerations to each of the members of the Policy Coordinating Committees and Technical Advisory Committees of the 3C Agencies in Billings and Great Falls. Liaison between these agencies and Department of Highways is maintained by the Chief, Planning & Research Bureau and the local Division Construction Supervisor, both of whom serve on the Technical Advisory Committees.

A.4 Development of the Action Plan

Following is a brief chronological summary of activities in the development of the Montana Action Plan.

. . . An orientation meeting was held involving high-level Department administrators and the consultant, to discuss a plan of attack for the Action Plan. The Engineering Division was given primary authority and responsibility for its development.

. . . The Engineering Division Administrator appointed an Action Plan Coordinator from his staff to

oversee the Plan's development, and to act as coordinator of departmental, consultant, outside agency and public involvement. The Department and the consultant began internal organization and preparation of study memorandums on PPM 90-4.

. . . The Director of Highways informed the Governor of Montana on the implications and requirements of the Process Guidelines, and solicted his support for involvement of other State agencies in the Plan's development.

. . . The Governor appointed a member of his staff to coordinate other State agencies' involvement with the Plan, and directed the heads of all executive departments to appoint liaison persons to the Department of Highways. The Legislative Assembly's Environmental Quality Council also appointed a liaison man to the Department.

. . . The heads of all Departmental functional groups were given an orientation on the Process Guidelines. The Action Plan Coordinator began formation and direction of in-house and outside agency study groups.

. . . The Director of Highways sent an information letter to each State legislator, soliciting involvement and comments on Action Plan development.

. . . The Action Plan Coordinator and the consultant held an orientation meeting of State Agencies Liaison Group (representatives of executive departments and Environmental Quality Council). The members of the group were asked to submit input in the following areas: (1) The areas of responsibility in ESE concerns of each agency. (2) The resources of data and personnel that might be available to the Department of Highways in identifying ESE impacts of highway programs and projects (3) the agency's current processes for reviewing highway projects and environmental statements (4) a critique of current highway project processes in relation to the agency's area of concern, and suggestions for improved processes (5) a description of the agency's field organization (outside of Helena) that might aid Department of Highways and other transportation planning agencies, i.e., 3C Agencies, in identifying ESE impacts.

. . . The Department and consultant began the inventory and documenting of existing processes of decision-making, impact identification, resources, planning and design of highway improvements, etc.

. . . The Action Plan Coordinator met with the Montana Advisory Committee of the 1974 National Transportation Study to discuss implications of the Process Guidelines.

. . . The Department and consultant continued developing in-house and external awareness and involvement in the Action Plan, e.g., distribution of media news releases, invitations for involvement to Federal offices and special interest groups, orientation letters to 3C organization members, etc.

. . . The Department and consultant developed work papers and guidelines for procedures outlined in PPM 90-4.

. . . Charts of existing procedures, with emphasis on the impact identification and public involvement aspects, were developed by the consultant, reviewed and revised in conjunction with the Chief,

Planning & Research Bureau and the Supervisor, Preconstruction Section. These charts were further reviewed with the Action Plan Steering Committee and the State Agency Liaison Group.

. . . In joint work sessions, the Action Plan Coordinator, Planning & Research Bureau Chief, Preconstruction Section Supervisor, Action Plan Steering Committee and the consultant developed charts of revised processes in systems planning, location and design, to incorporate new procedures to meet the intent of the Process Guidelines.

. . . A preliminary draft of the Action Plan was begun, to be completed after the first public hearing.

There were two major organizational changes in the Department of Highways while the Action Plan was developing, (1) a new supervisor was appointed to the Preconstruction Section, and (2) the Planning & Research Bureau, formerly in the Centralized Services Division, was transferred to the Engineering Division. The transitions were made smoothly, and there were no adverse effects on the Action Plan's development.

Planning & Research Bureau and the Supervisor, Preconstruction Section. These charts were further reviewed with the Action Plan Steering Committee and the State Agency Liaison Group.

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CONTRIBUTIONS TO DEVELOPMENT OF
THE MONTANA ACTION PLAN

In-House Group

Director of Highways	H. J. Anderson
Administrator, Engineering Division	Jack R. Beckert, PE
Action Plan Coordinator	*David S. Johnson, PE
Chief, Planning & Research Bureau	*Paul R. DeVine, PE
Supervisor, Preconstruction Section	*Stephen C. Kologi, PE

Consultant: VTN, INC. of Helena, Montana

Vice President:	David A. Twiddy, PE
Project Director for VTN:	Gordon C. Butcher, AIP
Transportation Consultant:	Martin A. Wallen, PE
Senior Systems Analyst:	Philip L. Inglis
Research Assistant:	Richard W. Nagle,

Action Plan Steering Committee

Department of Agency:	
Highways:	David S. Johnson Paul R. DeVine Stephen C. Kologi
Environmental Quality Council:	Dr. Loren L. Bahls, Staff Ecologist
Fish & Game:	Ralph W. Boland, Asst. Admin., Environment & Information Division
Health & Environmental Sciences:	Lynn A. Brant, Air Pollution Control Specialist, Air Quality Bureau
Intergovernmental Relations:	Lloyd F. Meyer (State Clearinghouse)
Intergovernmental Relations:	R. Byron Roberts (Planning and Economic Development Division)
Natural Resources & Conservation:	Lawrence M. Jakub, Assistant for Environmental and Legal Affairs William P. Cunningham, Asst. Land Use Planner
Federal Highway Administration:	William S. Dunbar, District Engineer

State Agency Liaison Group

Department or Agency:	
Office of the Governor:	Dr. Lawrence K. Pettit, Special Assistant
Agriculture:	Eldon F. Fastrup, Marketing Coordinator
Business Regulation:	Les W. Alke, Financial Division Administrator
Education (Montana Historical Society)	Brian Cockhill, Archivist Robert D. Gant, Assistant Curator
Fish & Game:	*Ralph W. Boland
Health & Environmental Sciences:	*Lynn A. Brant
Institutions:	Larry D'Arcy, Assistant Administrator

State Agency Liaison Group (Cont)

Intergovernmental Relations:	*Lloyd F. Meyer (State Clearinghouse)
Intergovernmental Relations:	*R. Byron Roberts (Planning/Economic Development)
Justice:	John P. Conner, Deputy Attorney General
Labor & Industry:	Dick Kane, Wage & Hour Section Supervisor
Military Affairs:	Maj. Stephen F. Keim, Construction & & Facilities Office
Natural Resources & Conservation	*Lawrence M. Jakub
	*William P. Cunningham, Asst. Land Use Planner
Prof. & Occupational Licensing:	Matt H. Brown, Director, Board of Real Estate
Public Service Regulation:	Francis G. Fisher, Transportation Division Admin.
Revenue:	Robert P. Wilson, Motor Fuel Tax Div. Admin.
Social & Rehabilitation Services:	Ed Malensek, Special Services Div. Admin.
State Lands:	John Henson, Staff Attorney
	Sharon Solomon, Reclamation Supervisor
Environmental Quality Council:	*Dr. Loren L. Bahls
Federal Highway Administration:	*William S. Dunbar, District Engineer

*Also served on Action Plan Steering Committee.

MONTANA ACTION PLAN: Replies to Public Involvement Invitation

Legislative Assembly (150 sent)

Senator George Darrow, District No. 8
Representative Max Baucus, District No. 18
Representative John F. Bell, District No. 12

Federal Offices (44 sent)

Department of Agriculture

Northern Plains Soil & Water Research Service,
Agricultural Research Service, Western Region
US Forest Service, Regional Engineer
State Conservationist, Soil Conservation Service
Economic Research Service

Department of Health, Education & Welfare

Region VIII

Department of Housing & Urban Development

Federal Housing Administration

Department of the Interior

Environmental Project Review Director, Office of
the Secretary of the Interior
Bureau of Reclamation, Pacific Northwest Region
Bureau of Reclamation, Upper Missouri Region
Bureau of Sport Fisheries & Wildlife

Department of Transportation

Federal Highway Administration, Montana Division
United States Coast Guard

Defense Civil Preparedness Agency, Region 8
Environmental Protection Agency, Region VIII
Small Business Administration

Other Groups and Citizens (485 sent)

City of Billings, Department of Engineering, City Engineer
Bozeman Chamber of Commerce, Roads & Highways Director
Mr. Harvey Bryan
Butte-Silver Bow City-County Planning Board
Consulting Engineers Council of Montana, Highway
Liaison Committee

Other Groups and Citizens (Cont.)

Lewistown City-County Planning Board
Mr. J. Austin Miller, CPA
Missouri River Development Association
Montana College of Mineral Science & Technology,
  Mr. Fred W. DeMoney, President
Montana Farmers Union
Montana State AFL-CIO, Education & Inter-Group
  Relations Director
Montana State University, Department of Earth Sciences
Montana Wildlife Federation
Northwest Planners Associated
South Central Montana Development Federation
University of Montana, Mr. B. E. Cox, Department of Geology
Valley County Development Council
Wolf Point Chamber of Commerce & Agriculture,
  Transportation & Highway Committee
Wolf Point City-County Planning Board

APPENDIX B
APPLICABLE POLICY AND PROCEDURES MEMORANDUMS

B(1) PPM 20-8: Public Hearings and Location Approval

B(2) Instructional Memorandum 20-3-72

B(3) Instructional Memorandum 20-4-72: Guidelines for Consideration of Economic, Social and Environmental Effects (PPM 20-8 Modification)

B(4) PPM 90-4: Process Guidelines (Economic, Social and Environmental Effects on Highway Projects)

Transmittal 147

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BUREAU OF PUBLIC ROADS

POLICY AND PROCEDURE MEMORANDUM

20-8

January 14, 1969

PUBLIC HEARINGS AND LOCATION APPROVAL

Par.

1. PURPOSE

a. The purpose of this PPM is to ensure, to the maximum extent practicable, that highway locations and designs reflect and are consistent with Federal, State, and local goals and objectives. The rules, policies, and procedures established by this PPM are intended to afford full opportunity for effective public participation in the consideration of highway location and design proposals by highway departments before submission to the Federal Highway Administration for approval. They provide a medium for free and open discussion and are designed to encourage early and amicable resolution of controversial issues that may arise.

b. The PPM requires State highway departments to consider fully a wide range of factors in determining highway locations and highway designs. It provides for extensive coordination of proposals with public and private interests. In addition, it provides for a two-hearing procedure designed to give all interested persons an opportunity to become fully acquainted with highway proposals of concern to them and to express their views at those stages of a proposal's development when the flexibility to respond to these views still exists.

2. AUTHORITY

This PPM is issued under authority of the Federal-aid Highway Act, 23 U.S.C. 101 et seq., 128, 315, sections 2(a), 2(b)(2), and 9(e)(1) of the Department of Transportation Act, 49 U.S.C. 1651(a) and (a)(2), 1657(e)(1); 49 CFR § 1.4(c); and 23 CFR § 1.32.

3. APPLICABILITY

a. This PPM applies to all Federal-aid highway projects.

b. If preliminary engineering or acquisition of right of way related to an undertaking to construct a portion of a Federal-aid highway project is carried out without Federal-aid funds, subsequent phases of the work are eligible for Federal-aid funding only if the nonparticipating work after the effective date of this PPM was done in accordance with this PPM.

c. This PPM shall not apply to the construction of highway projects where the Federal Highway Administrator has made a formal determination that the construction of the project is urgently needed because of a national emergency, a natural disaster or a catastrophic failure.

4. DEFINITIONS (As used in this PPM)

a. A "corridor public hearing" is a public hearing that:

(1) Is held before the route location is approved and before the State highway department is committed to a specific proposal;

(2) Is held to ensure that an opportunity is afforded for effective participation by interested persons in the process of determining the need for, and the location of, a Federal-aid highway; and

(3) Provides a public forum that affords a full opportunity for presenting views on each of the proposed alternative highway locations and the social, economic, and environmental effects of those alternate locations.

b. A "highway design public hearing" is a public hearing that:

(1) Is held after the route location has been approved, but before the State highway department is committed to a specific design proposal;

(2) Is held to ensure that an opportunity is afforded for effective participation by interested persons in the process of determining the specific location and major design features of the Federal-aid highway; and

(3) Provides a public forum that affords a full opportunity for presenting views on major highway design features, including the social, economic, environmental, and other effects of alternate designs.

c. "Social, economic, and environmental effects" means the direct and indirect benefits or losses to the community and to highway users. It includes all such effects that are relevant and applicable to the particular location or design under consideration such as:

(1) Fast, safe and efficient transportation.

(2) National defense.

(3) Economic activity.

(4) Employment.

(5) Recreation and parks.

(6) Fire protection.

(7) Aesthetics.

(8) Public utilities.

(9) Public health and safety.

(10) Residential and neighborhood character and location.

(11) Religious institutions and practices.

(12) Conduct and financing of Government (including effect on local tax base and social service costs).

(13) Conservation (including erosion, sedimentation, wildlife and general ecology of the area).

(14) Natural and historic landmarks.

(15) Noise, and air and water pollution.

(16) Property values.

(17) Multiple use of space.

(18) Replacement housing.

(19) Education (including disruption of school district operations).

(20) Displacement of families and businesses.

(21) Engineering, right-of-way and construction costs of the project and related facilities.

(22) Maintenance and operating costs of the project and related facilities.

(23) Operation and use of existing highway facilities and other transportation facilities during construction and after completion.

This list of effects is not meant to be exclusive, nor does it mean that each effect considered must be given equal weight in making a determination upon a particular highway location or design.

5. COORDINATION

a. When a State highway department begins considering the development or improvement of a traffic corridor in a particular area, it shall solicit the views of that State's resources, recreation, and planning agencies, and of those Federal agencies and local public officials and agencies, and public advisory groups which the State highway department knows or believes might be interested in or affected by the development or improvement. The State highway department shall establish and maintain a list upon which any Federal agency, local public official or public advisory group may enroll, upon its request, to receive notice of projects in any area specified by that agency, official, or group. The State highway departments are also encouraged to establish a list upon which other persons and groups interested in highway corridor locations may enroll in order to have their views considered. If the corridor affects another State, views shall also be solicited from the appropriate agencies within that State. All written views received as a result of coordination under this paragraph must be made available to the public as a part of the public hearing procedures set forth in paragraph 8.

b. Other public hearings or informal public meetings, clearly identified as such, may be desirable either before the study of alternate routes in the corridor begins or as it progresses to inform the public about highway proposals and to obtain information from the public which might affect the scope of the study or the choice of alternatives to be considered, and which might aid in identification of critical social, economic and environmental effects at a stage permitting maximum consideration of these effects. State highway departments are encouraged to hold such a hearing or meeting whenever that action would further the objectives of this PPM or would otherwise serve the public interest.

6. HEARING REQUIREMENTS

a. Both a corridor public hearing and a design public hearing must be held, or an opportunity afforded for those hearings, with respect to each Federal-aid highway project that:

(1) Is on a new location; or

(2) Would have a substantially different social, economic or environmental effect; or

(3) Would essentially change the layout or function of connecting roads or streets.

However, with respect to secondary road programs, two hearings are not required on a project covered by paragraph 6(a)(1) or (2) unless it will carry an average of 750 vehicles a day in the year following its completion.

b. A single combined corridor and highway design public hearing must be held, or the opportunity for such a hearing afforded, on all other projects before route location approval, except as provided in paragraph 6.c. below.

c. Hearings are not required for those projects that are solely for such improvements as resurfacing, widening existing lanes, adding auxiliary lanes, replacing existing grade separation structures, installing traffic control devices or similar improvements, unless the project:

(1) Requires the acquisition of additional right-of-way; or

(2) Would have an adverse effect upon abutting real property; or

(3) Would change the layout or function of connecting roads or streets or of the facility being improved.

d. With respect to a project on which a hearing was held, or an opportunity for a hearing afforded, before the effective date of this PPM, the following requirements apply:

(1) With respect to projects which have not received location approval:

(a) If location approval is not requested within 3 years after the date of the hearing or an opportunity for a hearing, compliance with the corridor hearing requirements is required unless a substantial amount of right-of-way has been acquired.

(b) If location approval is requested within 3 years after the date of the hearing or an opportunity for a hearing, compliance with the corridor hearing requirements is not required.

(2) With respect to those projects which have not received design approval:

(a) If design approval is not requested within 3 years after the date of the hearing or an opportunity for a hearing, compliance with the design hearing requirements is required.

(b) If design approval is requested within 3 years after the date of the hearing or an opportunity for a hearing, compliance with the design hearing requirements is nevertheless required unless the division engineer finds that the hearing adequately dealt with design issues relating to major design features.

e. If location approval is not requested within 3 years after the date of the related corridor hearing held, or an opportunity for a hearing afforded, under this PPM, a new hearing must be held or the opportunity afforded for such a hearing.

f. If design approval is not requested within 3 years after the date of the related design hearing held, or an opportunity for a hearing afforded, under this PPM, a new hearing must be held or the opportunity afforded for such a hearing.

7. OPPORTUNITY FOR PUBLIC HEARINGS

a. A State may satisfy the requirements for a public hearing by (1) holding a public hearing, or (2) publishing two notices of opportunity for public hearing and holding a public hearing if any written requests for such a hearing are received. The procedure for requesting a public hearing shall be explained in the notice. The deadline for submission of such a request may not be less than 21 days after the date of publication of the first notice of opportunity for public hearing, and no less than 14 days after the date of publication of the second notice of opportunity for public hearing.

b. A copy of the notice of opportunity for public hearing shall be furnished to the division engineer at time of publication. If no requests are received in response to a notice within the time specified for the submission of those requests, the State highway department shall certify that fact to the division engineer.

c. The opportunity for another public hearing shall be afforded in any case where proposed locations or designs are so changed from those presented in the notices specified above or at a public hearing as to have a substantially different social, economic, or environmental effect.

d. The opportunity for a public hearing shall be afforded in each case in which either the State highway department or the division

engineer is in doubt as to whether a public hearing is required.

e. Public hearing procedures authorized and required by State law may be followed in lieu of any particular hearing requirement of paragraph 7 or 8 of this PPM if, in the opinion of the Administrator, such procedures are reasonably comparable to that requirement.

8. PUBLIC HEARING PROCEDURES

a. Notice of public hearing:

(1) When a public hearing is to be held, a notice of public hearing shall be published at least twice in a newspaper having general circulation in the vicinity of the proposed undertaking. The notice should also be published in any newspaper having a substantial circulation in the area concerned; such as foreign language newspapers and local community newspapers. The first of the required publications shall be from 30 to 40 days before the date of the hearing, and the second shall be from 5 to 12 days before the date of the hearing. The timing of additional publications is optional.

(2) In addition to publishing a formal notice of public hearing, the State highway department shall mail copies of the notice to appropriate news media, the State's resource, recreation, and planning agencies, and appropriate representatives of the Departments of Interior and Housing and Urban Development. The State highway department shall also mail copies to other federal agencies, and local public officials, public advisory groups and agencies who have requested notice of hearing and other groups or agencies who, by nature of their function, interest, or responsibility the highway department knows or believes might be interested in or affected by the proposal. The State highway department shall establish and maintain a list upon which any federal agency, local public official, public advisory group or agency, civic association or other community group may enroll upon its request to receive notice of projects in any area specified by that agency, official or group.

(3) Each notice of public hearing shall specify the date, time, and place of the hearing and shall contain a description of the proposal. To promote public understanding, the inclusion of a map or other drawing as part of the notice is encouraged. The notice of public hearing shall specify that maps, drawings, and other pertinent information developed by the State highway department and written views received as a result of the coordination outlined in Paragraph 5.a will be available for public inspection and copying and shall specify where this information is available; namely, at the nearest State highway department office or at some other convenient location in the vicinity of the proposed project.

(4) A notice of highway design public hearing shall indicate that tentative schedules for right-of-way acquisition and construction will be discussed.

(5) Notices of public hearing shall indicate that relocation assistance programs will be discussed .

(6) The State highway department shall furnish the division engineer with a copy of the notice of public hearing at the time of first publication.

b. Conduct of public hearing:

(1) Public hearings are to be held at a place and time generally convenient for persons affected by the proposed undertaking.

(2) Provision shall be made for submission of written statements and other exhibits in place of, or in addition to, oral statements at a public hearing. The procedure for the submissions shall be described in the notice of public hearing and at the public hearing. The final date for receipt of such statements or exhibits shall be at least 10 days after the public hearing.

(3) At each required corridor public hearing, pertinent information about location alternatives studied by the State highway department shall be made available. At each required highway design public hearing information about design alternatives studied by the State highway department shall be made available.

(4) The State highway department shall make suitable arrangements for responsible highway officials to be present at public hearings as necessary to conduct the hearings and to be responsive to questions which may arise.

(5) The State highway department shall describe the State-Federal relationship in the Federal-aid highway program by an appropriate brochure, pamphlet, or statement, or by other means.

(6) A State highway department may arrange for local public officials to conduct a required public hearing. The State shall be appropriately represented at such public hearing and is responsible for meeting other requirements of this PPM.

(7) The State highway department shall explain the relocation assistance program and relocation assistance payments available.

(8) At each public hearing the State highway department shall announce or otherwise explain that at any time after the hearing and before the location or design approval related to that hearing, all information developed in support of the proposed location or design will be available upon request, for public inspection and copying.

(9) To improve coordination with the State highway department, it is desirable that the division engineer or his representative attend a public hearing as an observer. At a hearing, he may properly explain procedural and technical matters, if asked to do so. A Federal Highway Administration decision regarding a proposed location or design will not be made before the State highway department has requested location or design approval in accordance with paragraph 10.

c. Transcript:

(1) The State highway department shall provide for the making of a verbatim written transcript of the oral proceedings at each public hearing. It shall submit a copy of the transcript to the division engineer within a reasonable period (usually less than 2 months) after the public hearing, together with:

(a) Copies of, or reference to, or photographs of each statement or exhibit used or filed in connection with a public hearing.

(b) Copies of, or reference to, all information made available to the public before the public hearing.

(2) The State highway department shall make copies of the materials described in subparagraph 8.c.(1) available for public inspection and copying not later than the date the transcript is submitted to the division engineer.

9. CONSIDERATION OF SOCIAL, ECONOMIC, AND ENVIRONMENTAL EFFECTS

State highway departments shall consider social, economic, and environmental effects before submission of requests for location or design approval, whether or not a public hearing has been held. Consideration of social economic, and environmental effects shall include an analysis of information submitted to the State highway department in connection with public hearings or in response to the notice of the location or design for which a State highway department intends to request approval. It shall also include consideration of information developed by the State highway department or gained from other contacts with interested persons or groups.

10. LOCATION AND DESIGN APPROVAL

a. This section applies to all requests for location or design approval whether or not public hearings, or the opportunity for public hearings, are required by this PPM.

b. Each request by a State highway department for approval of a route location or highway design must include a study report containing the following:

(1) Descriptions of the alternatives considered and a discussion of the anticipated social, economic, and environmental effects of the alternatives, pointing out the significant differences and the reasons supporting the proposed location or design. In addition, the report must include an analysis of the relative consistency of the alternatives with the goals and objectives of any urban plan that has been adopted by the community concerned.

(a) Location study reports must describe the termini, the general type of facility, the nature of the service which the highway is intended to provide, and other major features of the alternatives.

(b) Design study reports must describe essential elements such as design standards, number of traffic lanes, access control features, general horizontal and vertical alignment, right-of-way requirements and location of bridges, interchanges, and other structures.

(2) Appropriate maps or drawings of the location or design for which approval is requested.

(3) A summary and analysis of the views received concerning the proposed undertaking.

(4) A list of any prior studies relevant to the undertaking.

c. At the time it requests approval under this paragraph, each State highway department shall publish in a newspaper meeting the requirements of paragraph 8.a.(1), a notice describing the location or design, or both, for which it is requesting approval. The notice shall include a narrative description of the location or design. Where practicable, the inclusion of a map or sketch of that location or design is desirable. In any event, the publication shall state that such maps or sketches as well as all other information submitted in support of the request for approval is publicly available at a convenient location.

d. The following requirements apply to the processing of requests for highway location or highway design approval:

(1) Location approval. The division engineer may approve a route location and authorize design engineering only after the following requirements are met:

(a) The State highway department has requested route location approval.

(b) Corridor public hearings required by this PPM have been held, or the opportunity for hearings has been afforded.

(c) The State highway department has submitted public hearing transcripts and certificates required by section 128, title 23, United States Code.

(d) The requirements of this PPM and of other applicable laws and regulations.

(2) Design approval. The division engineer may approve the highway design and authorize right-of-way acquisition, approve right-of-way plans, approve construction plans, specifications, and estimates, or authorize construction, only after the following requirements have been met:

(a) The route location has been approved.

(b) The State highway department has requested highway design approval.

(c) Highway design public hearings required by this PPM have been held, or the opportunity for hearings has been afforded.

(d) The State highway department has submitted the public hearing transcripts and certificates required by section 128, title 23, United States Code.

(e) The requirements of this PPM and of other applicable laws and regulations.

e. The division engineer, under criteria to be promulgated by the Federal Highway Administrator, may in other appropriate instances authorize the acquisition of right-of-way before a design hearing.

f. Secondary Road Plans shall be amended as necessary to incorporate procedures similar to those required for other projects. Secondary Road Plans shall include provisions requiring:

(1) route location and highway design approval,

(2) preparation of study reports as described in paragraph 10(b), and

(3) corridor and highway design public hearings in all cases where they would be required for Federal-aid projects not administered under the Secondary Road Plan. Project actions by the division engineer or submissions to the division engineer which are not now required should not be established for Secondary Road Plan projects as a result of this PPM.

11. PUBLICATION OF APPROVAL

In cases where a public hearing was held, or the opportunity for a public hearing afforded, the State highway department shall publish notice of the action taken by the division engineer on each request for approval of a highway location or design, or both, in a newspaper meeting the requirements of paragraph 8. a. (1), within 10 days after receiving notice of that action. The notice shall include a narrative description of the location and/or design, as approved. Where practicable, the inclusion of a map or sketch of that location or design is desirable. In any event, the publication shall state that such maps or sketches as well as all other information concerning the approval is publicly available at a convenient location.

12. REIMBURSEMENT FOR PUBLIC HEARING EXPENSES

Public hearings are an integral part of the preliminary engineering process. Reasonable costs associated with public hearings are eligible for reimbursement with Federal-aid funds on the same basis as other preliminary engineering costs.

F. C. Turner
Director of Public Roads

Lowell K. Bridwell
Federal Highway Administrator

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
WASHINGTON, D.C. 20590

July 12, 1972

INSTRUCTIONAL MEMORANDUM 20- 3-72
HEV-20

SUBJECT: PPM 20-8, Public Hearings and Location Approval
(Paragraph 6. Hearing Requirements)

Pending the revision of PPM 20-8, Public Hearings and Location Approval, issued on June 14, 1969, the following changes are hereby effective:

1. Add to paragraphs 4.a.(1) and 4.b.(1) between "proposal" and the following semicolon, "[except as provided in paragraph 6.(g).]."

2. Add a new paragraph 6.(g). as follows:

"(g). With respect to any project for which a public hearing has been held under Federal-aid procedures, and for which it is determined by the State highway department and the Division Engineer that a new hearing is desirable to consider supplemental information on social, economic or environmental effects relative to proposals presented at a previous public hearing or with respect to additional proposals, then, as appropriate, a new corridor or design hearing should be held. When recommended by the State and approved by the Division Engineer, a new corridor hearing held in accordance with this paragraph may be combined with the design hearing, whether or not a design hearing for the project has been previously held. In such instances, the location shall be reconsidered and a new request for location approval shall be submitted together with the request for design approval."

R. R. Bartelsmeyer
Acting Federal Highway Administrator

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
WASHINGTON, D.C. 20590

August 30, 1972

INSTRUCTIONAL MEMORANDUM 20-4-72
HEV-20

SUBJECT: Guidelines for Consideration of Economic, Social, and Environmental Effects (PPM 20-8 Modification)

1. Purpose

a. This memorandum is issued to assure that:

(1) Possible adverse economic, social, and environmental effects relating to any proposed federally funded project on any Federal-aid highway system have been fully considered in developing such project.

(2) Final decisions on the project are made in the best overall public interest, taking into consideration the need for fast, safe, and efficient transportation, public services, and the costs of eliminating or minimizing adverse effects.

b. Policy and Procedure Memorandum 20-8, issued January 14, 1969, provided guidance for the consideration of social, economic, and environmental effects in the design and location of highways. This instructional memorandum supersedes the list of effects in paragraph 4.c. of PPM 20-8 by consolidating it with the effects listed in 23 U.S.C. 109(h). It also sets forth reporting procedures to assure that the general types of consequences that may be expected from construction of the proposed highway improvement are being considered with respect to costs, gains and losses.

2. Authority

Sections 135(a), 135(b) and 136(b) of the Federal-Aid Highway Act of 1970; 23 U.S.C. 109(h), 128(a) and 128(b).

3. Application

This memorandum applies to proposed projects which have not received PS&E (plans, specifications, and estimates) approval as of the effective date of this memorandum. These guidelines do not apply to projects which are already in various stages of physical construction or are exempt under the emergency provisions of paragraph 3.c. of PPM 20-8.

4. Procedures

a. As of the effective date of this memorandum, projects which have received design approval (as defined in PPM 90-1), may receive PS&E approval, if otherwise satisfactory, on the basis of past State highway department submissions which identify and document the economic,

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social and environmental effects previously considered with respect to these advanced projects, together with a supplemental report, if necessary, covering the consideration and disposition of the items not previously covered and now listed herein in paragraph 4.b. The supplemental report shall be prepared by the State and submitted to the division engineer not later than the time of submission of PS&E documents for the next Federal-aid improvement of the highway section. This supplemental documentation may take the form of statements in the program submission (PR-1 or PR-9 forms and attachments), relative to the overall proposal being advanced, unless the division engineer determines that a more detailed report is warranted.

b. After the effective date of this memorandum, a State highway department request for location and design approval, as required under PPM 20-8, shall be accompanied by reports and other documents showing that the development of the project has taken into consideration the need for fast, safe, and efficient transportation together with highway costs, traffic benefits and public services including provisions of national defense; and which discuss the anticipated economic, social, and environmental effects of the proposal and alternatives under consideration, to the extent applicable, on the following:

(1) Regional and Community Growth including general plans and proposed land use, total transportation requirements, and status of the planning process.

(2) Conservation and Preservation including soil erosion and sedimentation, the general ecology of the area as well as man-made and other natural resources, such as: park and recreational facilities, wildlife and waterfowl areas, historic and natural landmarks.

(3) Public Facilities and Services including religious, health and educational facilities; and public utilities, fire protection and other emergency services.

(4) Community Cohesion including residential and neighborhood character and stability, highway impacts on minority and other specific groups and interests, and effects on local tax base and property values.

(5) Displacement of People, Businesses, and Farms including relocation assistance, availability of adequate replacement housing, economic activity (employment gains and losses, etc.).

(6) Air, Noise, and Water Pollution including consistency with approved air quality implementation plans, FHWA noise level standards (as required under PPM 90-2), and any relevant Federal or State water quality standards.

(7) Aesthetic and Other Values including visual quality, such as: "view of the road" and "view from the road," and the joint development and multiple use of space.

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c. In addition to coverage of the significant differences and reasons supporting the alternative locations and designs, discussions of the above items and other economic, social, and environmental effects, which were raised during public hearings or which were otherwise considered, shall include: (1) identification of the adverse effects, (2) appropriate measures to eliminate or minimize the adverse effects, (3) the estimated costs [expressed in either monetary, numerical or qualitative terms] of the measures considered.

d. The degree of analysis of the items may vary, depending upon the scope and the nature of project, the stage of project development, and the extent of the adverse effect.

e. Where material required by this memorandum has been previously submitted pursuant to other requirements, such as those in PPMs 20-8 or 90-1, the State highway department may either resubmit such material or make reference to it.

5. Effective date

The effective date of this memorandum is September 29, 1972.

R. R. Bartelsmeyer

R. R. Bartelsmeyer
Acting Federal Highway Administrator

U.S DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

POLICY AND PROCEDURE MEMORANDUM

Transmittal 259

90-4

September 21, 1972

PROCESS GUIDELINES (ECONOMIC, SOCIAL, AND ENVIRONMENTAL EFFECTS ON HIGHWAY PROJECTS)

Par.

1. PURPOSE

To provide to Highway Agencies and Federal Highway Administration (FHWA) field offices guidelines for the development of Action Plans to assure that adequate consideration is given to possible social, economic, and environmental effects of proposed highway projects and that the decisions on such projects are made in the best overall public interest. These guidelines identify issues to be considered in reviewing the present organization and processes of a Highway Agency as they relate to social, economic, and environmental considerations, and in developing desirable improvements. The guidelines recognize the unique situation of each State and do not prescribe specific organizations or procedures.

2. AUTHORITY

Section 109(h), Title 23, United States Code, directs the following: "(h) Not later than July 1, 1972, the Secretary, after consultation with appropriate Federal and State officials, shall submit to Congress, and not later than 90 days after such submission, promulgate guidelines designed to assure that possible adverse economic, social, and environmental effects relating to any proposed project on any Federal-aid system have been fully considered in developing such project, and that the final decisions on the project are made in the best overall public interest, taking into consideration the need for fast, safe and efficient transportation, public services, and the costs of eliminating or minimizing such adverse effects and the following:

(1) air, noise, and water pollution;

(2) destruction or disruption of manmade and natural resources, esthetic values, community cohesion and the availability of public facilities and services;

(3) adverse employment effects, and tax and property value losses;

(4) injurious displacement of people, businesses and farms; and

(5) disruption of desirable community and regional growth.

Such guidelines shall apply to all proposed projects with respect to which plans, specifications and estimates are approved by the Secretary after the issuance of such guidelines."

3. DEFINITIONS

a. Highway Agency - The State highway department or State department of transportation with the primary responsibility for initiating and carrying forward the planning, design, and construction of Federal-aid highway projects.

b. Human Environment - The aggregate of all external conditions and influences (esthetic, ecological, biological, cultural, social, economic, historical, etc.) that affect the lives of humans.

c. Environmental Effects - The totality of the effects of a highway project on the human and natural environment.

d. A-95 Clearinghouse - Those agencies and offices in States, metropolitan areas, and multi-State regions which perform the coordination functions called for in Office of Management and Budget (OMB) Circular A-95.

e. The following definitions are provided solely to clarify the terms 'system planning,

"location," and "design" as they are used in these guidelines. A Highway Agency may choose to use different definitions in responding to these guidelines. If not stated otherwise, the following definitions will be assumed to be applicable:

(1) System Planning - Regional analysis of transportation needs and the identification of transportation corridors.

(2) Location - From the end of system planning through location approval.

(3) Design - From location approval through the approval of plans, specifications, and estimates.

4. POLICY

a. It is the FHWA's policy that full consideration shall be given to economic, social and environmental effects in the development of proposed Federal-aid projects, that provisions for ensuring such consideration shall be incorporated in the decisionmaking process, and that decisions on such projects shall be made in the best overall public interest, taking into consideration the need for fast, safe, and efficient transportation, public services, and the costs of eliminating or minimizing possible adverse economic, social, and environmental effects.

b. The process by which decisions are reached should be such as to merit public confidence in the Highway Agency. To achieve this objective, it is the FHWA's policy that:

(1) Economic, social, and environmental effects be identified and studied early enough to permit analysis and consideration while alternatives are being formulated and evaluated.

(2) Other agencies and the public be involved in project development early enough to influence technical studies and final decisions.

(3) Appropriate consideration be given to reasonable alternatives, including the alternative of not building the project and alternative modes.

5. APPLICATION

These guidelines apply to State Highway Agencies that propose projects for which plans, specifications, and estimates are approved by the FHWA. Other agencies forwarding projects for the approval of the FHWA need not develop the "Action Plan" specified herein, but shall be guided by the stated principles in the development of such Federal-aid highway projects.

6. PROCEDURES

a. To meet the requirements of these guidelines, each Highway Agency shall develop an Action Plan which describes the organization to be utilized and the processes to be followed in the development of Federal-aid highway projects from initial system planning through design.

b. The Action Plan should be consistent with the requirements of PPM's 20-8, 90-1, and of other applicable directives.

c. Involvement of other Federal, State, and local agencies, including A-95 Clearinghouses, and, where appropriate, agencies responsible for transportation planning in accordance with PPM 50-9, officials, and interested groups should be sought throughout the development stages of the Action Plan. Comments on the proposed Action Plan should be solicited from these agencies, groups, and individuals, and the Plan forwarded to the FHWA should include a summary of comments on the Plan (including the sources of such comments) and the State's disposition of them.

d. The FHWA, through its division and regional offices, will consult with the State in the development of the Action Plan and, within the limits of its resources, will be prepared to assist or advise.

e. The Action Plan shall be submitted to the Governor of the State for review and approval as a means of obtaining a high degree of interagency and intergovernmental coordination. Approval by the Governor may occur prior to submittal of the Action Plan to the FHWA, or, if desired by the State, may occur concurrently with FHWA approval.

f. The Action Plan shall be submitted to the FHWA not later than June 15, 1973, for approval. The FHWA will not give location approval on projects after November 1, 1973, unless the Action Plan has been approved.

7. IMPLEMENTATION AND REVISION

a. The FHWA may review the States' implementation of their Action Plans at appropriate intervals. The FHWA may withhold location approvals, or such other project approvals as it deems appropriate, if the Action Plan is not being followed.

b. The Action Plan shall be implemented as quickly as feasible. A program of staged implementation for the period up to November 1, 1974, shall be developed and described

in the Action Plan. It is expected that all aspects of the Action Plan will be implemented by this date. If the Highway Agency believes that any provision in its Action Plan cannot be implemented prior to November 1, 1974, it shall present a schedule for the implementation of such provisions to the FHWA, which will consider the proposed schedule on a case-by-case basis.

c. If the schedule for implementation set forth in an approved Action Plan is not met, the FHWA may withhold location approvals or such other project approvals as it deems appropriate.

d. The Action Plan may be revised by the Highway Agency. Major revisions will be reviewed and approved by the FHWA by the same process as for the initial Action Plan.

8. CONTENTS OF THE ACTION PLAN

a. The Action Plan shall indicate the procedures to be followed in developing highway projects, including organizational structure and assignments of responsibility by the chief administrative officer of the Highway Agency to positions or units within the Agency. Where participation of other agencies or consultants will be utilized, this should be so indicated. The topics to be covered by the Action Plan are outlined in the following paragraphs of this PPM.

b. The Action Plan should describe the procedures followed in developing the Action Plan and the steps taken to involve other agencies and the public during development of the Plan.

9. IDENTIFICATION OF SOCIAL, ECONOMIC, AND ENVIRONMENTAL EFFECTS

a. Identification of potential social, economic, and environmental effects, both beneficial and adverse, of alternative courses of action should be made as early in the study process as feasible, in accordance with PPM's 90-1 and 20-8 and IM 20-4-72. Timely information on such effects should be produced so that the development and consideration of alternatives and studies can be influenced accordingly. Further, the costs, financial and otherwise, of eliminating or minimizing possible adverse social, economic, and environmental effects should be determined.

b. The Action Plan should identify:

(1) The assignment of responsibility for:

(a) Providing information on social, economic, and environmental effects of alternative courses of action during system planning, location, and design stages.

(b) Controlling the technical quality of social, economic, and environmental studies.

(c) Monitoring current social, economic, and environmental research; monitoring environmental effects of completed projects, where appropriate; and disseminating "state-of-the-art" information within the agency.

(2) Procedures to be followed to ensure that timely information on social, economic, and environmental effects:

(a) Is developed in parallel with alternatives and related engineering data, so that the development and selection of alternatives and other elements of technical studies can be influenced appropriately.

(b) Indicates the manner and extent to which specific groups and interests are beneficially and/or adversely affected by alternative proposed highway improvements.

(c) Is made available to other agencies and to the public early in studies.

(d) Is developed with participation of staffs of local agencies and interested citizens.

(e) Is developed sufficiently to allow for the estimation of costs, financial or otherwise, of eliminating or minimizing identified adverse effects.

10. CONSIDERATION OF ALTERNATIVE COURSES OF ACTION

a. Alternatives considered should include, where appropriate, alternative types and scales of highway improvements and other transportation modes. The option of no highway improvement should be considered and used as a reference point for determining the beneficial and adverse effects of other alternatives. Appropriate alternatives which might minimize or avoid adverse social, economic, or environmental effects should be studied and described, particularly in terms of impacts upon specific groups and in relationship to 42 U.S.C. 2000d-2000d-4 (Title VI of the Civil Rights Act 1964) and 42 U.S.C. 3601-3619 (Title VIII of the Civil Rights Act of 1968). The key trade-offs among the alternatives should be presented.

b. The Action Plan should identify the assignment of responsibility and the procedures to be followed to ensure that:

(1) The consequences of the no-highway-improvement option are set forth, with data of a level of completeness and of detail consistent with that developed for other alternatives.

(2) A range of alternatives appropriate to the stage is considered at each stage from system studies through final design.

(3) The development of new transportation modes or the improvement of other modes are adequately considered, where appropriate.

(4) Non-transportation components, such as replacement housing, joint development, multiple use of rights-of-way, etc., are in coordination with transportation components.

(5) Suggestions from outside the Agency are given careful consideration.

11. INVOLVEMENT OF OTHER AGENCIES AND THE PUBLIC

a. The President has directed Federal agencies to "develop procedures to insure the fullest practicable provision of timely public information and understanding of Federal plans and programs with environmental impact in order to obtain the views of interested parties" (Executive Order 11514). Policy and Procedure Memorandum 20-8 contains similar provisions. Interested parties should have adequate opportunities to express their views early enough in the study process to influence the course of studies, as well as the actions taken. Information about the existence, status, and results of studies should be made available to the public throughout those studies. The required public hearings (PPM 20-8) should be only one component of the agency's program to obtain public involvement.

b. The Action Plan should identify the assignment of responsibility and procedures to be followed:

(1) To ensure that information is made available to other agencies and the public throughout the duration of project studies, and that such information is as clear and comprehensible as practicable concerning:

(a) The alternatives being considered.

(b) The effects of alternatives, both beneficial and adverse, and the manner and extent to which specific groups are affected.

(c) Right-of-way and relocation assistance programs and relocation plans.

(d) The proposed time schedule of project development, including major points of public interest.

(2) To ensure that interested parties, including local governments and metropolitan, regional, State and Federal agencies, and the public have an opportunity to participate in an open exchange of views throughout the stages of project development.

(3) To select and coordinate procedures, in addition to formal public hearings, to be used to inform and involve the public.

(4) To utilize appropriate agencies with area-wide responsibilities to assist in the coordination of viewpoints during project development.

(5) To involve appropriately the organization which is officially established in urbanized areas of over 50,000 population to conduct continuing, comprehensive, cooperative transportation planning (consistent with PPM 50-9 and IM 50-3-71).

12. SYSTEMATIC INTERDISCIPLINARY APPROACH

a. United States Code, Title 42, Section 4332 (National Environmental Policy Act, 1969) requires that agencies use "a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on man's environment."

b. The Action Plan should indicate procedural arrangements or assignments of responsibilities which will be necessary to meet this requirement, including:

(1) The organization and staffing of interdisciplinary project groups which are systematic and interdisciplinary in approach, including the possible use of consultants and representatives of other State or local agencies.

(2) Recruitment and training of personnel with skills which are appropriate to add on a full-time basis, and the development of appropriate career patterns, including management opportunities.

(3) Additional training for present personnel to enhance their capabilities to work effectively in an interdisciplinary environment.

13. DECISIONMAKING PROCESS

a. The process of reaching various decisions on highway improvement projects should be reviewed to assure that it provides for the appropriate consideration of all economic, social, environmental, and transportation factors as required by these guidelines.

b. The Action Plan should identify:

(1) The processes through which other State and local agencies, government officials, and private groups may contribute to reaching decisions, and the authority, if any, which other agencies or government officials can exercise over decisions.

(2) Different decision processes, if any, for various categories of projects (e. g., Interstate, Primary, Secondary, TOPICS) and for various geographic regions of the State (e. g., in various urban and rural regions) to reflect local differences in the nature of potential environmental effects or in the structure of local governments and institutions.

(3) The processes to be used to obtain participation in decisions by officials of appropriate agencies in other States for those situations in which the potential social, economic, and environmental effects are of interstate concern.

14. INTERRELATION OF SYSTEM AND PROJECT DECISIONS

a. Many significant economic, social, and environmental effects of a proposed project are difficult to anticipate at the system planning stage and become clear only during location and design studies. Conversely many significant environmental effects of a proposed project are set at the system's planning stage. Decisions at the system and project stages shall be made with consideration of their social, economic, environmental, and transportation effects to the extent possible at each stage.

b. The Action Plan should identify:

(1) Procedures to be followed to:

(a) Ensure that potential social, economic, and environmental effects are identified insofar as practicable in system planning studies as well as in later stages of location and design.

(b) Provide for reconsideration of earlier decisions which may be occasioned by results of further study, the availability of additional information, or the passage of time between decisions.

(2) Assignment of responsibility for ensuring that project studies are effectively coordinated with system planning on a continuing basis.

15. LEVELS OF ACTION BY PROJECT CATEGORY

a. A Highway Agency may develop different procedures to be followed depending upon the economic, social, environmental, or transportation significance of the highway section to be developed. Different procedures may also be adopted for various categories of projects, such as TOPICS, new route locations, or secondary roads, and for various regions of the State, such as urban areas or zones of particular environmental significance.

b. The Action Plan should identify:

(1) The categories which the Highway Agency will use to distinguish the different degrees of effort which under normal circumstances will be devoted to various types of projects.

(2) Assignment of responsibility for determining, initially and in periodic reviews, the category of each ongoing highway project.

(3) Procedures to be followed for each category (including identification of impacts, public involvement, decision process, and other issues covered in these guidelines).

16. RESPONSIBILITY FOR IMPLEMENTATION

Assignment of responsibility for implementation of the Action Plan should be identified.

17. FISCAL AND OTHER RESOURCES

a. An important component of the Action Plan is identification of resources of the Highway Agency and of other agencies required to perform the identified procedures and execute the assigned responsibilities.

b. The Action Plan should identify:

(1) The resources of the Highway Agency (in terms of personnel and funding) that will be utilized in implementing and carrying out the Action Plan.

(2) Resources that are available in other agencies to provide necessary information on social, economic, and environmental effects.

(3) Programs for the addition of trained personnel or fiscal or other resources to either the Highway Agency itself or other agencies.

18. CONSISTENCY WITH EXISTING LAWS AND DIRECTIVES

The Highway Agency should identify and report, either in the Action Plan or otherwise, areas where existing Federal and State laws and administrative directives prevent or hamper full compliance with these guidelines. Where appropriate, recommendations and proposed actions to overcome such difficulties should be described.

R. R. Bartelsmeyer
Acting Federal Highway Administrator

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APPENDIX C
SELECTED REFERENCES

The following is a summary of laws, regulations and directions which had particular applicability in the formulation of the Montana Action Plan, either as guides for development or background material.

(1) Public Law 91-190, National Environmental Policy Act of 1969,

Sec 102(2)(A), concerning use of systematic interdisciplinary approach in planning and decision-making;

Sec 102(2)(B), concerning procedures for considering environmental aspects, as well as economic and technical aspects, in decision-making;

Sec 102(2)(C), concerning Environmental Impact Statements;

Sec 102(2)(D), concerning consideration of alternative courses of action.

(2) Council on Environmental Quality, Statements on Proposed Federal Actions Affecting the Environment -- Guidelines, Federal Register v.36-n.79, 7724-7729.

(3) Office of Management & Budget Circular No. A-95 (Revised), Evaluation, Review, and Coordination of Federal and Federally Assisted Programs and Projects, February 9, 1971.

(4) Executive Order 11514, Protection and Enhancement of Environmental Quality, March 5, 1970, Federal Register v.35-n.46, 4247-4248.

(5) Executive Order 11593, Protection and Enhancement of the Cultural Environment, May 13, 1971.

(6) Sec 69-6501 thru 6517, RCM 1947 as amended, Montana Environmental Policy Act of 1971 (very similar in intent and effect with the National Environmental Policy Act of 1969 cited above).

(7) Public Law 91-605, Federal-Aid Highway Act of 1970, Sec 136(b), concerning economic, social, environmental, and other impact (Sec 109, Title 23, United States Code, "Highways").

(8) FHWA Policy & Procedure Memorandum 20-5, Secondary Road Plan, March 1973; on administration of Federal-aid secondary projects.

(9) FHWA Policy & Procedure Memorandum 20-8, Public Hearings and Location Approval, January 1969; on development of highway projects through public hearings; consideration of ESE effects; location and design approvals by FHWA.*

*See Appendix B

(10) FHWA Instructional Memorandum 20-4-72, Guidelines for Consideration of Economic, Social, and Environmental Effects (PPM 20-8 Modification), August 1972; consolidates list of ESE impacts in PPM 20-8 (cited above) with effects list of 23 USC 109(h).*

(11) FHWA Policy & Procedure Memorandum 50-9, Urban Transportation Planning, November 1969; definitions and interpretations of process prerequisite to approval by FHWA of projects in urban areas of more than 50,000 population; guidelines for developing each element of planning process.

(12) FHWA Policy & Procedure Memorandum 81-1, Relocation Assistant - General, January 1973; concerning prompt and equitable relocation of persons, businesses, farmers and nonprofit organizations displaced by highway construction.

(13) FHWA Policy & Procedure Memorandum 90-1, Environmental Impact and Related Statements, September 1972; guidelines to assure that human environment is carefully considered and national environmental goals are met when developing Federally financed highways.

*See Appendix B

(14) FHWA Policy & Procedure Memorandum 90-4,* Process Guidelines (Economic, Social, and Environmental Effects of Highway Projects), September 1972; guidelines for developing the Action Plan.

(15) Environmental Quality Council, State of Montana, Revised Guidelines for Environmental Impact Statements Required by the Montana Environmental Policy Act of 1971 Adopted by Environmental Quality Council, July 21, 1972.

*See Appendix B

APPENDIX D
DEFINITIONS

A

Action Plan — A highway agency's plan to assure that adequate consideration is given to possible economic, social and environmental effects of proposed highway projects and that decisions on such projects are made in the best overall public interest.

Administrative Division — A geographical area of the State served by construction and maintenance functions of the Department of Highways. There are eleven in Montana, each headed by a Division Construction Supervisor and a Division Maintenance Supervisor.

Alignment — A selected highway location within a corridor (q.v.)*

Alternates — Generally refers to various choices of physical location of a highway.

Alternatives — Similar to Alternates, but may include other than physical location of a highway, such as the various

*(q.v.) = qui vide, short for "see also" or "which see"

options open to solve highway problems. All alternates are alternatives, but not all alternatives are alternates.

Every highway study must contain alternatives, or choices. This requirement guarantees that a highway agency will actually consider possible choices and weigh the pros and cons of each.

A-95 Clearinghouse — Nickname for the State Clearinghouse within Department of Intergovernmental Relations. Administers Prior Project Notification & Review System mandated by Circular No. A-95, U.S. Office of Management and Budget. This directive provides for review of proposed Federal aid projects by interested and affected State agencies to determine compatibility of projects with interests of reviewing agencies.

Term can also apply to Metropolitan Clearinghouses of the City-County Planning Boards of Billings and Great Falls.

B

C

CEQ — Council on Environmental Quality, an agency of the

Executive office of the President. Not to be confused with EQC, Environmental Quality Council (q.v.), an agency of the Legislative Assembly of Montana.

Citizens Advisory Committee

Part of planning organization in "3C" (q.v.) cities. Appointed by City-County Planning Board as cross-section of city's economic and social classes, acts as sounding board for community on proposals advanced by Technical Advisory Committee (q.v.); also local input to planning process.

Comprehensive Plan

An official plan which establishes policy and programs to guide the long-range development of an established planning jurisdiction, including, as a minimum, plans for land use, circulation, public facilities and services, and open space. The circulation or "transportation element" is of particular interest to the highway planner.

Corridor

A definable zone between given points, unique because of its character. Could be several miles wide (as in a mountainous corridor versus a valley corridor), or several hundred feet wide (as in a commercial strip development versus a residential area corridor). In common usage it is a general highway routing to be analyzed by a feasibility study,

corridor study or route report. Such analysis generally does not involve a specific highway centerline, but reports on considerations involved in any alternative within the corridor.

D

Design Planning Report

Sets criteria to be used in the design of a highway project, such as traffic characteristics, design speeds, degrees of curvature, etc.

Design Study Report

Documentation accompanying request for Federal Highway Administration design approval, mandated by Section 10b, PPM 20-8 (q.v.). Describes essential elements such as design standards, number of traffic lanes, access control features, general horizontal and verticle alignment, right-of-way requirements, location of bridges, interchanges and other structures, etc.

E

Economic Growth Center

Areas designated by the Governor as eligible to apply for special Federal funding for Economic Growth Center Development Highways. Such centers have great potential for future economic growth, are geographically and economically capable of contributing to the development of the area, and have populations not exceeding 100,000. (23 (USC Sec. 143)

Engineering Division

That Division of the Department of Highways containing all functional groups responsible for planning, location, design and construction of highway improvements. It is headed by the Administrator - Engineering Division, who is the chief highway engineer of the State (abbreviation on process charts: A-ED).

Environmental Impact Statement

A written assessment of the anticipated beneficial and detrimental effects which a project may have on the environment.

Environmental Quality Council

Organization created for investigation, study and reporting on state of environmental quality in Montana, by Montana Environmental Policy Act of 1971. Council reviews environmental impact statements on projects of all State agencies.

EPA

United States Environmental Protection Agency.

EQC

Environmental Quality Council (See Also CEQ).

F

Federal-Aid Highway

A highway located on any of the four Federal-aid systems: primary system, urban system, secondary system and Interstate System.

FHWA — Federal Highway Administration, successor to the Bureau of Public Roads. An agency of the United States Department of Transportation.

Final Design — Comprehensive, detailed development of final contract plans, including all considerations for right-of-way, roadway, structures, drainage and utilities, incorporating all environmental considerations from earlier phases of plans development.

Financial District — One of the twelve geographic districts in Montana to which funds are allocated for highway work.

Forest Highway — Forest road which is of primary importance to the State, county or communities within, adjoining or adjacent to the national forests, and which is on a Federal-aid system.

G

Geometrics — Design or pattern of the highway route, such as interchange schemes, route curvature, roadway widths, etc.

H

Highway — Term includes roads, streets and parkways, and also

includes rights-of-way, bridges, railroad-highway crossings, tunnels, drainage structures, signs, guard-rails, and protective structures, in connection with highways.

Highway Agency — The state agency having primary responsibility for initiating and carrying forward planning, location, design and construction of Federal-aid highway projects. In Montana, the Department of Highways.

Highway Commission — A quasi-judicial board appointed by the Governor. Majority of Board is appointed to serve terms concurrent with the Governor's term; remaining members appointed for terms beginning January 1, 1975, and for staggered terms thereafter. Chairman designated by Governor.

Human Environment — The aggregate of all external conditions and influences (esthetic, ecological, biological, cultural, social, economic, historical, etc.) that affect the lives of human beings.

I

IM — Instructional Memorandum: Directive issued by FHWA giving interpretation of a Policy and Procedure Memorandum (PPM).

Indian Reservation Roads and Bridges

Roads and bridges located within or providing access to an Indian reservation, or Indian trust land, or restricted Indian land not subject to fee title alienation without approval of Federal government, on which Indians reside whom Secretary of Interior has determined to be eligible for services generally available to Indians under Federal laws specifically applicable to Indians.

Interdisciplinary

Relationship in which persons with expertise in varying disciplines may relate areas of their specialties to areas of other specialties, and grasp the effects on a subject under study. Differs from multidisciplinary (q.v.).

Interstate System

National System of Interstate and Defense Highways so located as to connect by routes, as direct as practicable, the principal metropolitan areas, cities and industrial centers, to serve the national defense, and to connect at suitable border points with routes of international importance in Canada and Mexico.

J

Joint Development

Or "joint development project" means the set of actions taken in concert by Department of Highways,

other governmental agencies, private organizations and individuals to prepare for and construct a new highway, including those activities to develop, redevelop or adjust the land uses and local network of services affected by the new highway (PPM 90-5, 3/27/73).

K

L

Level of Action — Magnitude of applied effort and resource expenditures needed at all levels of project development to insure that all highway projects are developed in the best and overall public interest.

Location Study Report — Documentation accompanying request for FHWA location approval, mandated by Sec. 10b, PPM 20-8 (q.v.). Describes termini, general type of facility, nature of service which highway is intended to provide, alternatives considered, anticipated ESE effects of alternatives, significant differences and reasons supporting proposed location. In addition, includes analysis of relative consistency of alternatives with goals and objectives of any urban plan adopted by the community concerned.

M

Maintenance — Preservation of the entire highway, including surface, shoulders, roadsides, structures and such traffic-control devices as are necessary for its safe and efficient use.

MEPA — Montana Environmental Policy Act of 1971; very similar to National Environmental Policy Act of 1969. Establishes Environmental Quality Council (q.v.) as agency of Legislature; requires EIS on State agency major actions significantly affecting environment.

Modes — The systems used to transport people and goods from one place to another. There are many modes of transportation, e.g., highways, rail, rapid transit, bus, people movers, air, water, etc.

Multidisciplinary — The gathering of data and reports from various disciplines, but without inter-relating the data in exchange of views by persons of those disciplines. Differs from Interdisciplinary (q.v.).

N

National Transportation Study — Continuing project designed to assess the nation's

transportation system to provide data to be used as a basis for legislative and expenditure recommendations to the President and Congress. Also used to inform Montana's Governor and Legislature of current and future needs of the State. Study contains reports on state of nation's transportation system, projections of future needs and recommendations for program priorities.

Negative Declaration

Documentation in support of a determination that, should a certain project be built, the anticipated effects upon human environment would not be significant. If an Environmental Impact Statement is not prepared, a Negative Declaration must be made.

No-Project Alternative

The option of not constructing or improving a highway segment or portion thereof under consideration. The No-Project Alternative does not preclude considering multi-modal transportation.

O

Other Agencies

As used in Action Plan, any agency of Federal, State or local government other than the Montana Department of Highways.

P

Park Roads — Those roads, including needed bridges, located in national parks or monuments, or in other areas administered by the National Park Service (excluding parkways authorized by Acts of Congress).

Parkway — A parkway specifically authorized by an Act of Congress, on land to which title is vested in the United States.

Planning and Research Bureau — Functional group in Engineering Division (q.v.); conducts state-wide investigations; makes surveys, plans, assembles engineering, economic and other data needed for the general planning of a complete highway system and program of highway improvements in the State. Formerly known as Planning Survey.

Policy Coordinating Committee — A body of the 3C Agencies (q.v.), usually consisting of the mayor, chairman of county commission, chairman of city-county planning board, and FHWA Division Engineer. Develops and keeps current transportation planning as an integral part of regional Comprehensive Plan (q.v.) of an urbanized area (q.v.) or other 3C city.

PPM — Policy and Procedures Memorandum: Format used by FHWA to inform highway agencies of FHWA's interpretations and applications of Federal statutes on highway and transportation matters.

PR-1 — Initial document submitted to FHWA, describing project location, type construction proposed, estimated engineering costs, right-of-way costs, construction costs. This document is a request for funds to proceed with project development.

Preconstruction Section — Functional group in Engineering Division (q.v.); accomplishes location and design of all highway projects in construction program.

Preliminary Design — Study of alternative design possibilities; development of design criteria for highway projects; preparation of design planning reports (q.v.) and design study reports (q.v.); analysis of statements, recommendations from individuals, organizations and other agencies; coordination with final design team.

Preliminary Engineering — Those engineering activities used during preliminary and final design of highway projects.

Primary System — Adequate system of connected main highways selected

or designed by State through its highway agency and approved by Secretary of Transportation, not exceeding 7% of total highway mileage of State (exclusive of mileage within national forests, Indian or other Federal reservations and within urban areas, as shown by records of highway agency on November 9, 1921). This mileage may be increased under conditions (23 USC 103).

Project Control Unit

Functional group in Engineering Division (q.v.), headed by Manager - Project Control (MGR PROJ CONTR), responsible for funding analysis on projects, and preparation of PR-1 (q.v.).

Public Hearings Unit

Functional group in Engineering Division (q.v.); administers arrangements, presentation and transcription of public hearings; responsible for advertising of public hearings as required by FHWA regulations.

Public Lands Highways

Those main highways through unappropriated or unreserved public lands, nontaxable Indian lands, or other Federal reservations, which are on the Federal-aid systems.

Q

R

Relocation Assistance — Program for persons displaced by new highway alignments. MDH policy is that no person shall be displaced by the construction of any state highway, unless and until adequate replacement housing has been provided. Replacement housing payments are made to eligible persons over and above the payment for the property acquired for right-of-way itself.

Rural Areas — All areas of a state not included in Urban Areas (q.v.).

S

Secondary Road Plan — Plan which may be used to administer Federal-aid secondary projects, pursuant to a Secondary Road Plan Agreement (q.v.).

Secondary Road Plan Agreement — Written statement prepared by Department of Highways and approved by FHWA stating procedures and standards the Department will use (or cause to be used) in administering secondary projects under the Plan.

Secondary System — Roads selected by MDH and county commissioners for inclusion in the system, such as farm-to-market roads,

rural mail routes, public school bus routes, local rural roads, county roads, township roads and roads of the county road class, so long as they are not on a Primary or Interstate system. Usually considered to be rural roads, but may be extended into urban areas, provided they pass through the urban area, or connect with another Federal-aid system within the urban area.

Section 4(f) Land

Publicly-owned lands in parks, recreation areas, or wildlife/waterfowl refuges, of national, State or local significance, as determined by the Federal, State or local officials having appropriate jurisdiction, or land from an historic site of national, State or local significance as determined by said officials. Such lands receive special consideration in the highway planning process. The reference is to Section 4 (f) of the Department of Transportation Act (80 Stat. 931; PL 89-670) which is identical with Section 138 of Title 23, United States Code, "Highways".

Special Provisions

Those special directions and requirements, identified as special provisions, that are prepared for a project under consideration and made a part of the construction contract.

Sufficiency Rating

Numerical rating of a section of roadway, obtained by comparing that section with an ideal section, looking at factors such as structure, safety and service. One of the tools used in developing construction priorities.

Systematic Interdisciplinary Approach

Use of the natural and social sciences and the environmental design arts, in planning and decision-making which may have an impact on man's environment; involvement of persons from varying disciplines in such a way that all of them may see the effects of a project in the light of both their own and the others' disciplines, and the interrelation of the disciplines on the subject at hand. Purpose is to insure adequate identification and consideration of ESE impacts.

T

Technical Advisory Committee

A body of the 3C Agencies (q.v.), usually consisting of city engineer, county surveyor, city-county planning board director, Chief of MDH Planning & Research Bureau (q.v.), the local Division Construction Supervisor (q.v.), and FHWA Division Planning & Research Engineer. Provides technical advice to 3C Policy Coordinating Committee (q.v.), and technical direction to staff of the local Transportation Study.

Tentative Construction Program

Public document published annually by Department of Highways, listing construction projects tentatively programmed for each year of a certain future period. Formerly referred to as "Five Year Plan"; now may cover more or less than five years. Most recently published Tentative Construction Program covers the six fiscal years from 1973 through 1978.

TOPICS

Traffic Operations Projects to Improve Capacity and Safety. Specially funded program to improve intersections in cities, authorized by Sec. 135, 23 USC.

3C Agency

Nickname for agencies established in response to Section 9, Federal-Aid Highway Act of 1962 (23 USC 134) and regulated by PPM 50-9, to provide Continuing, Comprehensive, Cooperative transportation planning in urban areas of over 50,000 population. Includes Billings and Great Falls in Montana. Department of Highways is currently extending similar process to Montana cities of 20,000 to 50,000 population.

Trade-Offs

Compromises reached in the best overall public interest when desirable goals in economic, engineering, social, environmental and esthetic values appear to be in conflict. Trade-offs may be agreed to between individuals or functional groups within Department of

Highways, or between other agencies, during the process of developing a highway, depending on the level of authority or responsibility involved in the problem.

U

Urban Area — Area including and adjacent to a municipality or other urban place having a population of 5,000 or more, as determined by latest Federal census, within boundaries fixed by Department of Highways, subject to approval by Secretary of Transportation.

Urban System — Established in each Urbanized Area (q.v.); located to serve major centers of activity; designed taking into account highest traffic volume corridors, and longest trips within such areas, and selected to best serve goals and objectives of community planning by 3C Agencies. May not be part of any other Federal-aid system, but must connect with a route on another Federal-aid system.

Urbanized Area — Area defined by U.S. Bureau of the Census, including a central city (or twin cities) with a population greater than 50,000, plus surrounding closely-settled areas which have population density greater than 1,000 per square mile.